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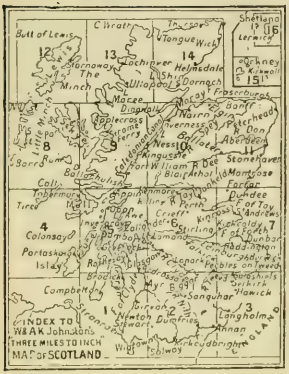
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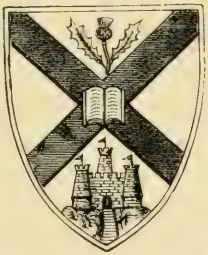

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[1] A full list of the chief Benefactors, with the purposes of their benefactions is given at pages 811-824.

the proceedings of the University Court from 1*st May* 1897 *to* 1*st May* 1898; *and a list of the University Societies.*

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The Calendar.

1898—OCTOBER, 31 DAYS.

1	Sa	**ANNUS ACADEMICUS** begins. First day for payment of **MATRICULATION** fee. Practical Anatomy begins. Annual Inspection of Library. All books to be returned before this date. Library closed for lending till 8th. **PREL. AND BURSARY EXAMS.** begin on September 30th. See Time-Tables, pages 119, 255, 364.
2	S	
3	M	Public Health Laboratory Course begins.
4	Tu	Last day for Names of Candidates for Degrees in Arts and Science, and for B.L. Preliminary on M.A. Standard to be given in, Certificates shown, and Fees paid. Last day for Names of Candidates for First Year Law Bursaries to be given in.
5	W	
6	Th	
7	Fr	
8	Sa	
9	S	
10	M	
11	Tu	Examinations for M.A., and for B.L. Preliminary on M.A. Standard begin. See Time-Table, page 123. Last day for Names of Candidates for B.D. to be given in, Certificates shown, and Fees paid.
12	W	
13	Th	Examinations for Degrees in Science begin. See Time-Table, page 256.
14	Fr	

15	Sa	Court of Session sits. Last day for entering Names for Second and Third Year Bursaries in Law.
16	S	
17	M	Meeting of University Court at 4 P.M. **CLASSES IN FACULTY OF MUSIC OPEN.**
18	Tu	**CLASSES IN THE FACULTIES OF ARTS, SCIENCE, LAW, AND MEDICINE OPEN.** Examinations for B.D. begin. See Time-Table, page 278.
19	W	
20	Th	
21	Fr	
22	Sa	*Meeting of Senatus Academicus* at 2 P.M.; Standing Committees to be appointed.
23	S	
24	M	Last day for Names of Candidates for Examinations for Degrees in Law to be given in, Certificates shown, and Fees paid.
25	Tu	**CLASSES IN FACULTY OF DIVINITY OPEN.**
26	W	
27	Th	
28	Fr	Meeting of General Council at 3 o'clock.
29	Sa	
30	S	
31	M	Examinations for Degrees in Law begin. See Time-Table, page 306.

1898—NOVEMBER, 30 DAYS.

1	Tu	
2	W	
3	Th	
4	Fr	Examinations for Divinity Bursaries begin.
5	Sa	
6	S	
7	M	
8	Tu	
9	W	
10	Th	
11	Fr	Martinmas.
12	Sa	
13	S	
14	M	*Meeting of University Court at* 4 P.M. Certificates for Bursaries, &c., granted by Deans. Fellowships, Scholarships, Bursaries, paid by Factor.
15	Tu	
16	W	
17	Th	
18	Fr	
19	Sa	
20	S	
21	M	
22	Tu	
23	W	
24	Th	
25	Fr	
26	Sa	*Meeting of Senatus Academicus at* 2 P.M.
27	S	
28	M	
29	Tu	
30	W	Registration of Members of General Council for Register of 1899 ends.

1898—DECEMBER, 31 DAYS.

1	Th	Last day for lodging Theses and for payment of Fees for D.Sc., D.Phil., and D.Litt.
2	Fr	
3	Sa	
4	S	
5	M	
6	Tu	
7	W	
8	Th	
9	Fr	
10	Sa	
11	S	
12	M	*Meeting of University Court at* 4 P.M.
13	Tu	
14	W	
15	Th	
16	Fr	*Meeting of Senatus at* 2 P.M. :—
17	Sa	(1) Election of Managers for Royal Infirmary.
18	S	(2) Report to Widows' Fund.
		(3) Arrangements for Winter and Summer Sessions, 1899-1900.
19	M	
20	Tu	Classes meet for last time before Christmas Vacation.
21	W	Library, Reading Room, and University Offices open from 10 A.M. to 1 P.M. till 4th January. Closed on
22	Th	Saturdays. Reading Room, New Buildings, closed.
23	Fr	
24	Sa	
25	S	**CHRISTMAS DAY.**
26	M	
27	Tu	
28	W	
29	Th	
30	Fr	
31	Sa	

1899—JANUARY, 31 DAYS.

1	S	
2	M	
3	Tu	
4	W	Classes meet after Christmas Vacation.
5	Th	
6	Fr	
7	Sa	
8	S	
9	M	
10	Tu	
11	W	
12	Th	
13	Fr	
14	Sa	
15	S	
16	M	*Meeting of University Court at* 4 P.M. Appointment of Examiners.
17	Tu	
18	W	
19	Th	
20	Fr	
21	Sa	
22	S	
23	M	*Meeting of University Court for hearing Registration Appeals (if any) at* 4 P.M.
24	Tu	
25	W	
26	Th	
27	Fr	*Meeting of Senatus Academicus at* 2 P.M. :—
28	Sa	(1) Report of D.D. Committee to be presented.
29	S	(2) Report of LL.D. Committee to be presented.
30	M	(3) Annual Report on University Library to be given in.
31	Tu	

1899—FEBRUARY, 28 DAYS.

1	W	
2	Th	**CANDLEMAS.**
3	Fr	
4	Sa	
5	S	
6	M	
7	Tu	
8	W	
9	Th	
10	Fr	
11	Sa	
12	S	
13	M	*Meeting of University Court at* 4 P.M. Holiday in Faculty of Arts.
14	Tu	
15	W	
16	Th	
17	Fr	
18	Sa	
19	S	
20	M	
21	Tu	
22	W	
23	Th	
24	Fr	
25	Sa	*Meeting of Senatus Academicus at* 2 P.M. :— (1) Report of D.D. Committee to be moved. (2) Report of LL.D. Committee to be moved. (3) Resolution to Elect Member of General Assembly.
26	S	
27	M	
28	Tu	

1899—MARCH, 31 DAYS.

1	W	Last day for Names for Preliminary Examinations to be given in and Fees paid.
2	Th	
3	Fr	Last day for Names of Candidates for Degrees in Arts, for Schoolmaster's Diploma, and for B.L. Preliminary on M.A. Standard to be given in and Fees paid. *Regulations as to late entries for Chemistry, Botany, and Zoology are the same as in the Faculty of Medicine.*
4	Sa	
5	S	
6	M	Last day for Names of Candidates for Degrees in Law to be given in and Fees paid.
7	Tu	Last day for Names for First Professional Examination in Medicine, and for Examinations for Degrees in Science to be given in and Fees paid. Regulations as to late entries for Chemistry, Botany, and Zoology, for First Science Examination are the same as in the Faculty of Medicine.
8	W	
9	Th	
10	Fr	Last day for Names for Examinations for Degrees in Music to be given in, Certificates shown, and Fees paid.
11	Sa	
12	S	
13	M	*Meeting of University Court at* 4 P.M. Last day for Names for Second Professional Examination in Medicine to be given in and Fees paid.
14	Tu	
15	W	Last day for Names of Candidates for Scholarships in Arts and Science to be intimated. Applications for Grants from Dickson Travelling Fund to be lodged. Applications for Grants from Moray Bequest Fund to be lodged.
16	Th	
17	Fr	**CLASSES IN FACULTY OF DIVINITY CLOSE.** Last day for Names for Third Professional Examination in Medicine (New Regulations) to be given in and Fees paid.
18	Sa	**CLASSES IN FACULTY OF LAW CLOSE.**
19	S	
20	M	Examinations for M.A., and for Degrees in Law begin. See Time-Tables, pages 123 and 306.

21	Tu	Last day for Names for Examinations in Divinity to be given in, Certificates shown, and Fees paid.
22	W	Examinations for Degrees in Music begin. See Time-Table, page 425.
23	Th	
24	Fr	**CLASSES IN FACULTY OF MEDICINE CLOSE.** Certificates for First Professional Examination to be examined from 10 to 3. Examinations in Science begin.
25	Sa	Practical Chemistry Examinations for Degrees in Arts, Science, and Medicine begin. Certificates for Second Professional Examination to be examined from 9 to 2. *Meeting of Senatus Academicus at* 2 P.M. :— (1) Member of Assembly to be elected. (2) Acceptances of Honorary Degrees.
26	S	
27	M	First Professional Written Examination in Medicine, B.Sc. Examinations, and Science Subjects for M.A. begin. See Time-Tables, pages 124, 371, 387.
28	Tu	B.D. Examinations begin. See Time-Table, page 279.
29	W	Second Professional Examinations begin. See Time-Tables, pages 372, 388.
30	Th	**CLASSES IN THE FACULTIES OF ARTS AND SCIENCE CLOSE.** Certificates for M.A. Examinations in April to be shown before 4 P.M.
31	Fr	**GOOD FRIDAY.** HOLIDAY. Preliminary Examinations begin. See Time-Table, pages 120, 256, 365. Examinations for M.A. with Honours and for Scholarships begin. See Time-Table, page 124.

1899—APRIL, 30 DAYS.

1	Sa	
2	S	**EASTER SUNDAY.**
3	M	
4	Tu	
5	W	
6	Th	
7	Fr	Certificates for Third Professional Examination (New Regulations) to be examined from 10 to 3.
8	Sa	Third Professional Examinations (New Regulations). See Time-Table, page 372.
9	S	
10	M	
11	Tu	
12	W	
13	Th	
14	Fr	*Meeting of Senatus in M'Ewan Hall at* 9.30 A.M. **GRADUATION CEREMONIAL IN DIVINITY, LAW, ARTS, AND SCIENCE, IN M'EWAN HALL, AT 10 A.M.** **COMMEMORATION SERVICE IN ST GILES'S AT 12.**
15	Sa	Senatus Office open from 10 to 1 till 1st May. Closed on Saturdays.
16	S	
17	M	*Meeting of University Court at* 4 P.M. Edinburgh holiday. University Library and Reading Room, in New Buildings, open from 10 A.M. to 1 P.M. till 24th April. Closed on Saturdays.
18	Tu	Names of Candidates for Final Exam. in Medicine to be given in, Certificates shown, and Fees paid.
19	W	Certificates for Final Exam. to be examined from 10 to 1.
20	Th	
21	Fr	
22	Sa	
23	S	
24	M	
25	Tu	
26	W	
27	Th	
28	Fr	
29	Sa	
30	S	Last day for lodging Theses for M.D. and for Ch.M.

1899—MAY, 31 DAYS.

1	M	Practical Anatomy begins.
2	Tu	**SUMMER SESSION OPENS.** Clinical Medicine Exams. begin.
3	W	*Meeting of University General Council at* 3 P.M.
4	Th	
5	Fr	
6	Sa	
7	S	
8	M	
9	Tu	
10	W	
11	Th	
12	Fr	**LAW CLASSES OPEN.**
13	Sa	
14	S	
15	M	*Meeting of University Court at* 4 P.M. Whitsunday.
16	Tu	
17	W	
18	Th	Fellowships, Scholarships, Bursaries paid by Factor. HOLIDAY. General Assembly meets.
19	Fr	
20	Sa	
21	S	
22	M	
23	Tu	
24	W	Queen Victoria born, 1819.
25	Th	
26	Fr	*Meeting of Senatus Academicus at* 3 P.M.
27	Sa	
28	S	
29	M	
30	Tu	
31	W	

1899—JUNE, 30 DAYS.

1	Th	
2	Fr	
3	Sa	
4	S	
5	M	
6	Tu	
7	W	
8	Th	
9	Fr	
10	Sa	
11	S	
12	M	*Meeting of University Court at* 4 P.M.
13	Tu	
14	W	
15	Th	
16	Fr	
17	Sa	
18	S	
19	M	Final Prof. Written Exam. in Med. begins. See Time-Table, pages 373, 388.
20	Tu	Accession of Queen Victoria, 1837.
21	W	Clinical Surgery Exam. for M.B. begins.
22	Th	
23	Fr	Last day for Names to be entered and Fees paid for Candidates for Clinical Examinations only for M.D. and for Ch.M.
24	Sa	Midsummer Day.
25	S	
26	M	
27	Tu	
28	W	Queen's Coronation, 1838.
29	Th	
30	Fr	*Meeting of Senatus Academicus at* 3 P.M.

1899—JULY, 31 DAYS.

1	Sa	
2	S	
3	M	
4	Tu	
5	W	
6	Th	Last day for Names of Candidates for Examinations for Degrees in Arts and Science, and for First Professional Examination in Medicine to be given in and Fees paid.
7	Fr	The Regulations of the Faculty of Medicine as to late entry fees applies to all entries for Chemistry, Botany, and Zoology. Clinical Medicine Examination for M.D. (New Regulations) begins at 9.45 A.M. Examination for Ch.M. begins.
8	Sa	
9	S	
10	M	
11	Tu	
12	W	
13	Th	Last day for Names of Candidates for Second Professional Examination to be given in and Fees paid.
14	Fr	SUMMER SESSION ENDS. Certificates for First Professional and Arts and Science Examinations to be examined from 10 to 3.
15	Sa	Practical Chemistry Examination for Degrees in Arts, Science, and Medicine begins. Second Professional Examination Certificates to be examined from 9 to 2.
16	S	
17	M	*Meeting of University Court at* 4 P.M. Written Examinations for Degrees in Arts (Dept. of Science), for Degrees in Science, and First Professional Examination in Medicine begin. See Time-Tables, pages 125, 372, 388.

18	Tu	Names of Candidates for Third Professional Examination in Medicine (New Regulations) to be given in and Fees paid.
19	W	Names to be entered for Graduation, and Registration Fee paid on or before this date.
20	Th	Second Professional Examination in Medicine begins. See Time-Tables, pages 372, 388.
21	Fr	
22	Sa	
23	S	
24	M	Certificates for Third Professional Examination (New Regulations) to be examined from 10 to 3.
25	Tu	Third Professional Examination. See Time-Table, page 373.
26	W	
27	Th	
28	Fr	*Meeting of Senatus Academicus at* 3 P.M. Candidates for Degrees to be approved.
29	Sa	**GRADUATION CEREMONIAL IN MEDICINE, SCIENCE, &c., AT 10 a.m.** Meeting of Senatus in M'Ewan Hall at 9.30 A.M.
30	S	
31	M	Library open from 10 A.M. to 1 P.M. till Friday, 1st September. Closed on Saturdays. Reading Room, New Buildings, closed during same period. University Offices open from 10 to 1 till 1st October. Closed on Saturdays.

1899—AUGUST, 31 DAYS.

1	Tu	LAMMAS.
2	W	
3	Th	
4	Fr	
5	Sa	
6	S	
7	M	
8	Tu	
9	W	
10	Th	
11	Fr	
12	Sa	
13	S	
14	M	
15	Tu	
16	W	
17	Th	
18	Fr	
19	Sa	
20	S	
21	M	
22	Tu	
23	W	
24	Th	
25	Fr	
26	Sa	
27	S	
28	M	
29	Tu	
30	W	
31	Th	

1899—SEPTEMBER, 30 DAYS.

1	Fr	Reading Room in University New Buildings open from 10 to 1 till 1st October. Closed on Saturdays.
2	Sa	
3	S	
4	M	
5	Tu	
6	W	
7	Th	
8	Fr	
9	Sa	
10	S	
11	M	
12	Tu	
13	W	
14	Th	
15	Fr	Last day for Names of Candidates for Preliminary Examinations to be given in and Fees paid.
16	Sa	Last day for entering for University Bursaries in the Faculties of Arts, Science, and Medicine.
17	S	
18	M	Edinburgh Holiday.
19	Tu	
20	W	
21	Th	
22	Fr	
23	Sa	
24	S	
25	M	
26	Tu	
27	W	
28	Th	
29	Fr	Preliminary and Bursary Examinations may begin. Time-Tables will be given in CALENDAR for 1899-1900, and in the Regulations issued separately.
30	Sa	

Calendar for the Academic Year 1899-1900.

OCTOBER 1899.						
S	1	8	15	22	29	
M	2	9	16	23	30	
Tu	3	10	17	24	31	
W	4	11	18	25		
Th	5	12	19	26		
Fr	6	13	20	27		
Sa	7	14	21	28		

NOVEMBER 1899.						
S		5	12	19	26	
M		6	13	20	27	
Tu		7	14	21	28	
W	1	8	15	22	29	
Th	2	9	16	23	30	
Fr	3	10	17	24		
Sa	4	11	18	25		

DECEMBER 1899.						
S		3	10	17	24	31
M		4	11	18	25[1]	
Tu		5	12	19	26	
W		6	13	20	27	
Th		7	14	21	28	
Fr	1	8	15	22	29	
Sa	2	9	16	23	30	

JANUARY 1900.						
S		7	14	21	28	
M	1	8	15	22	29	
Tu	2	9	16	23	30	
W	3	10	17	24	31	
Th	4	11	18	25		
Fr	5	12	19	26		
Sa	6	13	20	27		

FEBRUARY 1900.						
S		4	11	18	25	
M		5	12[2]	19	26	
Tu		6	13	20	27	
W		7	14	21	28	
Th	1	8	15	22		
Fr	2	9	16	23		
Sa	3	10	17	24		

MARCH 1900.						
S		4	11	18	25	
M		5	12	19	26	
Tu		6	13	20	27	
W		7	14	21	28	
Th	1	8	15	22	29	
Fr	2	9	16	23	30	
Sa	3	10	17	24	31	

APRIL 1900.						
S	1	8	15	22	29	
M	2	9	16[4]	23	30	
Tu	3	10	17	24		
W	4	11	18	25		
Th	5	12	19	26		
Fr	6	13[3]	20	27		
Sa	7	14	21	28		

MAY 1900.						
S		6	13	20	27	
M		7	14	21	28	
Tu	1	8	15	22	29	
W	2	9	16	23	30	
Th	3	10	17	24	31	
Fr	4	11	18	25		
Sa	5	12	19	26		

JUNE 1900.						
S		3	10	17	24	
M		4	11	18	25	
Tu		5	12	19	26	
W		6	13	20	27	
Th		7	14	21	28	
Fr	1	8	15	22	29	
Sa	2	9	16	23	30	

JULY 1900.						
S	1	8	15	22	29	
M	2	9	16	23	30	
Tu	3	10	17	24	31	
W	4	11	18	25		
Th	5	12	19	26		
Fr	6	13	20	27		
Sa	7	14	21	28		

AUGUST 1900.						
S		5	12	19	26	
M		6	13	20	27	
Tu		7	14	21	28	
W	1	8	15	22	29	
Th	2	9	16	23	30	
Fr	3	10	17	24	31	
Sa	4	11	18	25		

SEPTEMBER 1900.						
S		2	9	16[4]	23	30
M		3	10	17	24	
Tu		4	11	18	25	
W		5	12	19	26	
Th		6	13	20	27	
Fr		7	14	21	28	
Sa	1	8	15	22	29	

[1] Christmas.

[2] Holiday in Faculty of Arts.

[3] Good Friday.

[4] Edinburgh Holiday.

ADDRESSES OF THE PRINCIPAL, PROFESSORS, EMERITI AND RESIGNED PROFESSORS, AND UNIVERSITY LECTURERS.

I.—Principal and Professors.

Principal Sir William Muir, Dean Park House.
Professor Annandale, 34 Charlotte Square.
„ Armstrong, The University.
„ Baldwin Brown, 20 Lansdowne Crescent.
„ Bayley Balfour, Inverleith House.
„ Crum Brown, 8 Belgrave Crescent.
„ Butcher, 27 Palmerston Place.
„ Chiene, 26 Charlotte Square.
„ Chrystal, 5 Belgrave Crescent.
„ Copeland, Royal Observatory, Blackford Hill
„ Eggeling, 15 Hatton Place, Grange.
„ Ewart, Penicuik.
„ Flint, Johnstone Lodge, Craigmillar Park.
„ Fraser, 13 Drumsheugh Gardens.
„ Geikie, 31 Merchiston Avenue.
„ Sir Ludovic Grant, Bart., 29 India Street.
„ Greenfield, 7 Heriot Row.
„ Hardie, 4 Chalmers Crescent.
„ Kennedy, 9 Fountainhall Road.
„ Kirkpatrick, 5 Murrayfield.
„ Laurie, 22 George Square.
„ Sir Henry D. Littlejohn, 24 Royal Circus.
„ Mackinnon, 26 Blacket Place.
„ Mackintosh, 2 Drummond Place.
„ Nicholson, 3 Belford Park.
„ Niecks, 22 Dick Place.
„ Prothero, 2 Eton Terrace.
„ Rankine, 23 Ainslie Place.
„ Rutherford, 14 Douglas Crescent.
„ Saintsbury, Murrayfield House.

Professor Seth, University.
„ Seth Pringle Pattison, 16 Church Hill.
„ Simpson, 52 Queen Street.
„ Sir Thomas Grainger Stewart, 19 Charlotte Square.
„ Tait, 38 George Square.
„ Taylor, 6 Greenhill Park.
„ Sir Wm. Turner, 6 Eton Terrace.
„ Wallace, 5 Mansfield Place.
„ Wood, 16 Buckingham Terrace.

II.—Professors Emeriti.

George James Allman, LL.D., M.D., formerly Professor of Natural History; Ardmore, Parkstone, Dorset.

Archibald Hamilton Charteris, D.D., formerly Professor of Biblical Criticism and Biblical Antiquities; Cameron House, Dalkeith Road.

Alexander Campbell Fraser, D.C.L., LL.D., formerly Professor of Logic and Metaphysics; Gorton, Hawthornden, Midlothian.

Sir Douglas Maclagan, formerly Professor of Medical Jurisprudence and Public Health; 28 Heriot Row, Edinburgh.

Norman Macpherson, LL.D., formerly Professor of Scots Law; 6 Buckingham Terrace, Edinburgh.

David Masson, LL.D., formerly Professor of Rhetoric and English Literature; Gowanlea, Juniper Green, Midlothian.

Sir Herbert Stanley Oakeley, D.C.L., LL.D., Mus. D., formerly Professor of Music; 16 Suffolk Street, London, S.W.

Charles Piazzi Smyth, LL.D., formerly Professor of Practical Astronomy; Clova, Ripon.

III.—Professors Resigned.

Theodor Aufrecht, M.A., Ph.D., formerly Professor of Sanskrit; The University, Bonn.

Sir Archibald Geikie, LL.D., formerly Professor of Geology; Museum of Geology, Jermyn Street, London.

Henry Goudie, LL.D., formerly Professor of Civil Law; now Professor of Civil Law, University, Oxford.

Right Hon. Lord Lister, LL.D., M.D., formerly Professor of Clinical Surgery; 12 Park Crescent, Portland Place, London, W.

Æneas James George Mackay, LL.D., Sheriff of Fife, Advocate, formerly Professor of History; 7 Albyn Place, Edinburgh.

Robert Wallace, D.D., M.P., formerly Professor of Church History; 50 Finborough Road, London, S.W.

IV.—University Lecturers.

Andrew P. Aitken, D.Sc., 57 Great King Street.
Colonel F. Bailey, R.E., 7 Drummond Place.
J. Beard, D.Sc., Ph.D., 93 Comely Bank Avenue.
George A. Berry, M.B., C.M., 31 Drumsheugh Gardens.
G. W. Burnet, M.A., B.L., 46 Northumberland Street.
J. H. Burrage, M.A., Royal Botanic Gardens.
Edmond W. Carlier, M.D., 39 Morningside Drive.
James Carmichael, M.D., 22 Northumberland Street.
Thomas S. Clouston, M.D., Tipperlinn House, Morningside Place.
John James Cook, M.A., LL.B., 42 Northumberland Street.
Leonard Dobbin, Ph.D., 7 Cobden Road.
Charles Douglas, M.A., D.Sc., 12 Bruntsfield Crescent.
John Smith Flett, M.A., B.Sc., M.B., C.M., University.
William Fream, LL.D., B.Sc., The Vinery, Downton, Salisbury.
Robert P. Hardie, M.A., 4 Chalmers Crescent.
David Hepburn, M.D., 5 Marchhall Crescent.
Walter Hume Kerr, M.A., B.Sc., Viewfield, Juniper Green.
Cargill G. Knott, M.A., D.Sc., 42 Upper Gray Street.
Peter M'Bride, M.D., C.M., 16 Chester Street.
Hugh Marshall, D.Sc., 131 Warrender Park Road.
James Mill, M.A., 12 Howard Place.
Robert Muir, M.D., 20 Hartington Place.
William Peddie, D.Sc., 2 Cameron Park.
John Playfair, M.D., 5 Melville Crescent.
Charles Sarolea, Ph.D., D.Litt., 5 Blantyre Terrace.
Otto Schlapp, Ph.D., 9 Cluny Place.

William Cameron Sillar, M.B., B.Sc., 46 George Square.
G. Gregory Smith, M.A., University.
Professor Tiele, Leyden (Gifford Lecturer in Natural Theology).
Alexander Douglas Thomson, M.A., D.Litt., 20 Thirlestane Road.
Charles Tweedie, M.A., B.Sc., University.

University Officers.

Chancellor.

Date of Institution.		Appointed
1859.	RIGHT HON. ARTHUR JAMES BALFOUR, M.P., D.C.L., LL.D.	1891

Vice-Chancellor.

1859.	SIR WILLIAM MUIR, K.C.S.I., D.C.L., LL.D., Ph.D.	1885

Rector.

1859.	THE RIGHT HON. LORD BALFOUR OF BURLEIGH, LL.D.,	1896

Principal.

1582.	SIR WILLIAM MUIR, K.C.S.I., D.C.L., LL.D., Ph.D.	1885

Representative in Parliament.

1868.	SIR WILLIAM OVEREND PRIESTLEY, K.B., M.D., LL.D.	1896

University Court.

President—THE RECTOR, *Ex officio.*

THE PRINCIPAL	*Ex officio.*			
RT. HON. MITCHELL THOMSON, Lord Provost of Edinburgh	*Ex officio.*			
ÆNEAS J. G. MACKAY, LL.D., Advocate	Assessor, nominated by Chancellor			1891
THE HON. LORD STORMONTH DARLING, LL.D.	Do.	nominated by Rector		1887
ANDREW MITCHELL, Advocate	Do.	elected by Town Council		1897
PATRICK HERON WATSON, M.D., LL.D.	Do.	elected by General Council		1887
J. HOPE FINLAY, W.S.	Do.	do.	do.	1893
A. TAYLOR INNES, M.A., Advocate.	Do.	do.	do.	1893
JOSEPH BELL, M.D.	Do.	do.	do.	1895
SIR WILLIAM TURNER, M.B., D.C.L., LL.D., Professor of Anatomy	Do.	elected by Senatus		1889
ALEXANDER CRUM BROWN, M.D., D.Sc., Professor of Chemistry	Do.	do.	do.	1889
SAMUEL HENRY BUTCHER, LL.D., Litt.D., Professor of Greek	Do.	do.	do.	1891
SIMON S. LAURIE, LL.D., Professor of Education	Do.	do.	do.	1898

Secretary—PROFESSOR TAYLOR, D.D.
Factor and Law Agent—HENRY COOK, W.S.
Auditor—THOMAS GOLDIE DICKSON, C.A.
Clerk—THOMAS GILBERT.
Assistant Clerk—JAMES DOWIE.
Secretary's Clerk—GEORGE CAMPBELL.

Curators of Patronage.

		Appointed.
PRINCIPAL SIR WILLIAM MUIR	Elected by University Court	1887
RIGHT HON. J. P. B. ROBERTSON, LL.D., Lord Justice-General	Elected by do.	1896
PATRICK HERON WATSON, M.D., LL.D.	Elected by do.	1891
RIGHT HON. MITCHELL THOMSON	Elected by Town Council	1898
LT.-COL. ALEX. FORBES MACKAY..	Elected by do.	1898
SIR JAS. ALEXANDER RUSSELL, LL.D.	Elected by do.	1891
GEO. AULDJO JAMIESON, C.A....	Elected by do.	1892

Secretary—R. HERBERT JOHNSTON, W.S., 66 Frederick Street.

—o—

Senatus Academicus.

President—THE PRINCIPAL.

Secretary—Professor Sir LUDOVIC GRANT, Bart., B.A.

FACULTY OF ARTS.

Dean—Professor CHRYSTAL, LL.D.

Date of Institution.	Chairs.	Professors.	Appointed.	Patrons.
1760	**Rhetoric and English Literature**	GEO. SAINTSBURY, M.A., LL.D.	1895	Crown.
1583	**Humanity**	WILLIAM ROSS HARDIE, M.A.	1895	Lds. of Ses., Cur., Fac. of Adv., and W.S. Soc.[1]
1583	**Greek**	SAMUEL HENRY BUTCHER, LL.D., Litt.D.	1882	Curators.
1642	**Hebrew and Semitic Languages**	ARCH. ROBT. STIRLING KENNEDY, B.D., D.D.	1895	Curators.
1862	**Sanskrit and Comparative Philology**[2]	JULIUS EGGELING, Ph.D.	1875	Crown.
1882	**Celtic Languages, Literature, History, and Antiquities**[3]	DON. MACKINNON, M.A.	1882	Curators.
1583	**Mathematics**	GEO. CHRYSTAL, LL.D...	1879	Curators.
1583	**Natural Philosophy**	PETER GUTHRIE TAIT, M.A., D.Sc.	1860	Curators.
1583	**Logic & Metaphysics**	ANDREW SETH PRINGLE PATTISON, M.A., LL.D.	1891	Curators.
1583	**Moral Philosophy**	JAMES SETH, M.A.....	1898	Curators.
1719	**History**	JOHN KIRKPATRICK, LL.B., LL.D.	1881	Fac. of Adv., & Cur.
1893	**History**	GEORGE WALTER PROTHERO, M.A., D.Litt.	1894	University Court.
1871	**Commercial & Political Economy & Mercantile Law**[4]	JOSEPH SHIELD NICHOLSON, M.A., D.Sc.	1880	Cur., & Merch. Co.

[1] The Judges of the Court of Session nominate two Delegates, the Curators two, the Faculty of Advocates one, and the Society of Writers to the Signet one. These Delegates appoint the Professor, who receives his Commission from the Curators.

[2] This Chair was originally endowed by John Muir, LL.D. (Edin.), D.C.L. (Oxon.), of the Bengal Civil Service, and by a Parliamentary vote.

[3] Originally endowed with a sum of £14,000, raised by public subscription.

[4] This Chair was endowed in 1871 by the Merchant Company of Edinburgh, and other Governors of George Watson's and Daniel Stewart's Hospitals.

Date of Institution.	Chairs.	Professors.	Appointed.	Patrons.
1879	**Fine Art**[1] (Watson Gordon Chair).....	GERARD BALDWIN BROWN, M.A.	1880	Univ. Ct., Pres. R. Scott. Acad.
1876	**Theory, History, and Practice of Education**[2]	SIMON SOMERVILLE LAURIE, LL.D.	1876	Bell Trustees.

FACULTY OF SCIENCE.

Dean—Professor GEIKIE, D.C.L., LL.D.

1583	**Mathematics**	GEORGE CHRYSTAL, M.A., LL.D.	1879	Curators.
1583	**Natural Philosophy**..	PETER GUTHRIE TAIT, M.A., D.Sc.	1860	Curators.
1786	**Astronomy**.....	RALPH COPELAND, Ph.D.	1889	Crown.
1713	**Chemistry**	ALEX. CRUM BROWN, M.D., D.Sc.	1869	Curators.
1767	**Natural History**.....	JAMES COSSAR EWART, M.D.	1882	Curators.
1676	**Botany**.....	ISAAC BAYLEY BALFOUR, M.D., D.Sc.	1888	Crown.
1705	**Anatomy**	Sir WILLIAM TURNER, M.B., D.C.L., LL.D.	1867	Curators.
1685	**Physiology**.....	WILLIAM RUTHERFORD, M.D.	1874	Curators.
1871	**Geology**[3].....	JAMES GEIKIE, D.C.L., LL.D.	1882	Crown.
1868	**Engineering**[4]....	GEO. FREDERICK ARMSTRONG, M.A., C.E.	1885	Crown.
1790	**Agriculture & Rural Economy**[5]	ROBERT WALLACE.....	1885	Lds. of Sess., Cur. & Univ. Ct.
1898	**Public Health**[6].....	[7]	1898	Univ. Court.

FACULTY OF DIVINITY.

Dean—Professor TAYLOR, D.D.

1583	**Divinity**.....	ROBERT FLINT, D.D.....	1876	Curators.
1846	**Biblical Criticism & Biblical Antiquities**	[7]		Crown.
1694	**Ecclesiastical History**	MALCOLM CAMPBELL TAYLOR, D.D.	1877	Crown.
1642	**Hebrew and Semitic Languages**	ARCHD. ROBT. STIRLING KENNEDY, B.D., D.D.	1895	Curators.

FACULTY OF LAW.

Dean—Professor Sir LUDOVIC GRANT, Bart., B.A.

1707	**Public Law**.....	Sir LUDOVIC GRANT, Bart., B.A.	1890	Crown.

[1] This Chair was endowed by Mr H. G. and Miss Frances Watson.

[2] This Chair was originally endowed by the Trustees of the late Dr A. Bell, with a sum of £6000, to which a further sum of £4500 out of the Bell Fund was added by the Educational Endowments Commission in 1887.

[3] This Chair was originally endowed in 1871 by a sum of £6000 mortified by Sir Roderick Impey Murchison, Bart., and by an annual vote by Parliament.

[4] This Chair was endowed in 1868 by Sir David Baxter, and by an annual vote of Parliament.

[5] The Professor is elected by nine Delegates, three chosen by the Judges of the Court of Session, three by the Curators, and three by the University Court.

[6] This Chair, "The Bruce and John Usher Chair of Public Health," was endowed by legacy of £5000 from the late Alexander Low Bruce, Esq.; donations of £1163 from Mrs A. L. Bruce and other members of the Bruce family; £8000 from John Usher, Esq. of Norton; and £1000 from Messrs William Younger & Co.

[7] Vacant at date of issue.

Date of Institution.	Chairs.	Professors.	Appointed.	Patrons.
1710	**Civil Law**	JAS. MACKINTOSH, B.A.	1893	Fac. of Adv., and Cur.[1]
1719	**History (Constitutional, etc.)**	JOHN KIRKPATRICK, LL.B., LL.D.	1881	Do.[1]
1722	**Scots Law**	JOHN RANKINE, LL.D.	1888	Do.[1]
1807	**Forensic Medicine**	Sir HENRY DUNCAN LITTLEJOHN, M.D., LL.D.	1897	Crown.
1825	**Conveyancing**[2]	JOHN PHILP WOOD, W.S.	1891	Cur., Dep.-Kpr. and W.S. Soc.[3]
1871	**Commercial and Political Economy and Mercantile Law**	JOSEPH SHIELD NICHOLSON, M.A., D.Sc.	1880	Cur., & Merch. Co.

FACULTY OF MEDICINE.

Dean—Professor FRASER, M.D., LL.D., F.R.S.,

1713	**Chemistry**	ALEX. CRUM BROWN, M.D.	1869	Curators.
1767	**Natural History**	JAMES COSSAR EWART, M.D.	1882	Crown.
1676	**Botany**	BAYLEY BALFOUR, M.D.	1888	Curators.
1705	**Anatomy**	Sir WM. TURNER, M.B.	1867	Curators.
1685	**Physiology**	WM. RUTHERFORD, M.D.	1874	Curators.
1831	**Pathology**	WILLIAM SMITH GREENFIELD, M.D.	1881	Curators.
1768	**Materia Medica**	THOMAS RICHARD FRASER, M.D.	1877	Curators.
1685	**Medicine**	Sir THOMAS GRAINGER STEWART, M.D.	1876	Curators.
1831	**Surgery**	JOHN CHIENE, M.D.	1882	Curators.
1726	**Midwifery**	ALEX. RUSSELL SIMPSON, M.D.	1870	Curators.
1807	**Forensic Medicine**	Sir HENRY DUNCAN LITTLEJOHN, M.D.	1897	Crown.
1803	**Clinical Surgery**	THOS. ANNANDALE, M.D.	1877	Crown.
1741	**Clinical Medicine**	Sir THOMAS GRAINGER STEWART, M.D.; THOMAS RICHARD FRASER, M.D.; WILLIAM SMITH GREENFIELD, M.D. Diseases of Women—ALEXANDER RUSSELL SIMPSON, M.D.		
1898	**Public Health**[4]		1898	Univ. Court.

FACULTY OF MUSIC.

Dean—Professor NIECKS. The PRINCIPAL, *ex officio*.

Professor KIRKPATRICK, appointed by the Senatus.

1839	**Reid Chair of Music**	FREDERICK NIECKS.	1891	University Court.

UNIVERSITY LECTURERS.

	Subjects.	Lecturers.		
1892	**Rhet. and English Lit.**	G. GREGORY SMITH, M.A.	1892	University Court.
1892	**Latin**	JAMES MILL, M.A.	1896	Do.

1 For each of these Chairs the Faculty of Advocates send to the Curators a leet of two, of whom the Curators must choose one.

2 Endowed by the Society of Writers to the Signet.

3 The Election is by—(1) Two Delegates from the Curators; (2) Two from the Society of Writers to the Signet; and (3) The Deputy-Keeper of the Signet.

4 See footnote 6, page 3. Vacant at date of issue.

Date of Institution.	Subjects.	Lecturers.	Appointed.	Patrons.
1892	**Greek**	A. Douglas Thomson, M.A., D.Litt.	1892	University Court.
1892	**Mathematics**	Charles Tweedie, M.A., B.Sc.	1892	Do.
1892	**Natural Philosophy**	William Peddie, D.Sc.	1892	Do.
1892	**Applied Mathematics**	Cargill G. Knott, M.A., D.Sc.	1892	Do.
1892	**Logic & Metaphysics**	Robert P. Hardie, M.A.	1892	Do.
1892	**Moral Philosophy**	[1]		Do.
1894	**French Lang., Lit., and Romance Philology**	Charles Sarolea, Ph.D., D.Litt.	1894	Do.
1894	**German Lang., Lit., and Teutonic Philology**	Otto Schlapp, Ph.D.	1894	Do.
1894	**Chemical Theory**	Leonard Dobbin, Ph.D.	1894	Do.
1894	**Plant Physiology**	J. H. Burrage, M.A.	1894	Do.
1894	**Mineralogy and Crystallography**	Hugh Marshall, D.Sc.	1894	Do.
1894	**Petrology**	John Smith Flett, M.A., B.Sc., M.B., C.M.	1894	Do.
1894	**Advanced Physiology**	Edmond W. Carlier, M.D., B.Sc.	1894	Do.
1895	**Geometrical and Mechanical Drawing**	Walter Hume Kerr, M.A., B.Sc.	1895	Do.
1894	**Agricultural Chemistry**	A. P. Aitken, D.Sc.	1894	Do.
1889	**Forestry**	Colonel F. Bailey, R.E.	1892	Do.
1890	**Agricultural Entomology**	William Fream, LL.D., B.Sc.	1891	Do.
1887	**Gifford Lecturer on Natural Theology**	Professor C. P. Tiele of Leyden	1895	Do.
1889	**Gunning Lecturer**	[1]		Do.
1894	**International Private Law**	G. W. Burnet, M.A., B.L.	1894	Do.
1884	**Procedure & Evidence**	John James Cook, M.A., LL.B.	1895	Do.
1879	**Mental Diseases**	Thos. S. Clouston, M.D.	1879	Do.
1883	**Diseases of the Eye**	George A. Berry, M.B., C.M.	1896	Do.
1885	**Clinical Instruction on Diseases of Children**	Jas. Carmichael, M.D. John Playfair, M.D.	1885 1889	Do. Do.
1885	**Embryology and Vertebrate Zoology**	John Beard, D.Sc.	1894	Do.
1894	**Regional Anatomy**	David Hepburn, M.D.	1896	Do.
1894	**Experimental Pharmacology**	William C. Sillar, M.B., B.Sc.	1894	Do.
1894	**Pathological Bacteriology**	Robert Muir, M.D.	1894	Do.
1897	**Diseases of the Larynx, Ear, and Nose**	Peter M'Bride, M.D.	1897	Do.

UNIVERSITY ASSISTANTS.

IN THE FACULTY OF ARTS.

Rhetoric and Eng. Liter.	G. Gregory Smith, M.A.
Humanity	James Mill, M.A.
Greek	A. Douglas Thomson, M.A., D.Litt.

[1] Vacant at date of issue.

Hebrew and Semitic Languages	[1]
Mathematics	CHARLES TWEEDIE, M.A., B.Sc.
Natural Philosophy	WILLIAM PEDDIE, D.Sc.
Do. (Mechanical)	THOMAS LINDSAY.
Logic and Metaphysics	R. P. HARDIE, M.A.
Moral Philosophy	[1]
History	D. P. HEATLEY.

IN THE FACULTY OF SCIENCE.

Subjects.	Assistants.
Geology	JOHN S. FLETT, M.A., B.Sc., M.B., C.M.
Engineering	W. H. KERR, M.A., B.Sc.
Do., Demonstrator	W. G. RENNIE, B.Sc.

IN THE FACULTY OF DIVINITY.

Divinity	Rev. ALEXANDER HORN, B.D.
Hebrew and Semitic Languages	[1]

IN THE FACULTY OF LAW.

Civil Law	J. M. IRVINE, M.A., B.Sc., LL.B.
Scots Law	WILLIAM BURT, M.A.
Conveyancing	ROBERT M'NEIL.

IN THE FACULTY OF MEDICINE.

Chemistry	LEONARD DOBBIN, Ph.D.; HUGH MARSHALL D.Sc.; WILLIAM WHITE TAYLOR, M.A., B.Sc.; J. P. LONGSTAFF.
Zoology	J. BEARD, D.Sc.; GREGG WILSON, M.A., D.Sc.
Botany	JAS. ADAM TERRAS, B.Sc.; J. H. BURRAGE, M.A.
Anatomy	DAVID HEPBURN, M.D.; E. H. FRASER, M.B.; DAVID WATERSTON, M.B., C.M.; and THEODORE R. W. ARMOUR, M.B., C.M.
Physiology	E. W. CARLIER, M.D., B.Sc.; T. H. MILROY, M.B., C.M.
Pathology	ROBT. MUIR, M.A., M.D.; D. A. WELSH, M.D., B.Sc. *Laboratory Assistant*—RICHARD MUIR.
Materia Medica	WM. C. SILLAR, M.B., C.M., B.Sc., and [1]
Medicine	J. GIBSON CATTANACH, M.B., C.M.
Clinical Medicine Tutors	HARRY RAINY, M.B., C.M.; D. A. WELSH, M.D., B.Sc.; and GEORGE ELDER, M.D.
Surgery	HAROLD J. STILES, M.B., C.M.; JAMES GRAY, M.B., C.M.
Midwifery	WILLIAM FORDYCE, M.D., Assistant and Tutor.
Forensic Medicine	[1]
Clinical Surgery Tutor	JOHN WHEELER DOWDEN, M.B., C.M.

EXAMINERS.

FOR PRELIMINARY EXAMINATION.

The Professors of or Lecturers on the several subjects, and the following additional Examiners:—

Subjects.	Examiners.	Appointed.	Patrons.
English	STEWART ALAN ROBERTSON, M.A.	1895	University Court.

[1] Vacant at date of issue.

Institution.	Subjects.	Examiners.	Date of Appointed.	Patrons.
	Latin } Greek }	James C. Smith, M.A.	1898	University Court.
	Mathematics	James Goodwillie, M.A., B.Sc.	1898	Do.
	French } German }	C. D. Campbell.	1897	Do.
	Dynamics	James Goodwillie, M.A., B.Sc.	1898	Do.

FOR DEGREES, &c.

I.—IN THE FACULTY OF ARTS.

The Professors of or Lecturers on the several Subjects, and the following additional Examiners:—

1. LANGUAGE AND LITERATURE.

Subjects.	Examiners.	Appointed.	Patrons.
Latin } Greek }	James C. Smith, M.A.	1898	University Court.
English	Stewart Alan Robertson, M.A.	1895	Do.
French } German }	C. D. Campbell	1897	Do.
Sanskrit	Arthur A. Macdonell, M.A.	1896	Do.
Hebrew and Semitic Languages	Arthur P. Sym, M.A., B.D.	1895	Do.
Classical Archæology	Professor Ernest Gardner.	1897	Do.
Celtic	Don. Masson, M.A., M.D.	1896	Do.

2. MENTAL PHILOSOPHY.

Logic and Metaphysics, Moral Philosophy	Jas. L. M'Intyre, M.A., D.Sc.	1895	Do.
Political Economy	John Row-Fogo	1897	Do.
Education	W. L. Carrie, M.A.	1896	Do.
Philosophy of Law	J. Roberton Christie, LL.B.	1895	Do.

3. SCIENCE.

Mathematics, Natural Philosophy	James Goodwillie, M.A., B.Sc.	1898	Do.
Astronomy	W. E. Plummer, M.A.	1895	Do.
Chemistry	W. H. Perkin, Ph.D.	1896	Do.
Zoology	Arthur E. Shipley, M.A.	1895	Do.
Botany	Robert Turnbull, B.Sc.	1897	Do.
Geology	John Horne	1895	Do.

4. HISTORY AND LAW.

History	John Downie, M.A.	1895	Do.
Archæology and Art (History of)	Walter Armstrong, B.A. (Oxon.).	1897	Do.
Constitutional Law and History, Roman Law, Public Law	J. Roberton Christie, LL.B.	1895	Do.

II.—SCIENCE.

1. PURE SCIENCE.

The Professors of and Lecturers on the several subjects, and the additional Examiners in Mathematics, Natural Philosophy, Zoology, Botany, Chemistry, Astronomy, Anatomy, Physiology, and Geology.

2. ENGINEERING.

The Professors of and Lecturers on the several subjects, the additional Examiners in Mathematics, Natural Philosophy, and Chemistry, and in

Engineering	DAVID M. WESTLAND, C.E.	1897	University Court.

3. PUBLIC HEALTH.

The Professors of and Lecturers on the several subjects, and the following additional Examiners :—

Subjects.	Examiners.	Appointed.	Patrons.
Physics	JAMES GOODWILLIE, M.A., B.Sc.	1898	University Court.
Laboratory Work	JOHN ROBERTSON, M.D., B.Sc.	1897	Do.
Medicine in its bearings on Public Health	JOHN WYLLIE, M.D.	1898	Do.
Sanitation, Sanitary Law, and Vital Statistics	R. BRUCE LOW, M.D.	1897	Do.

4. AGRICULTURE.

The Professors of and Lecturers on the several subjects, and the following additional Examiners :—

The additional Examiners in Mathematics, Chemistry, Botany, Natural History, Geology, and Political Economy, and in

Agriculture	T. H. MIDDLETON, B.Sc.	1896	University Court.
Veterinary Hygiene	R. RUTHERFORD, F.R.C.V.S.	1898	Do.
Chemistry as applied to Agriculture	R. GREIG SMITH, B.Sc.	1896	Do.
Political Economy	JOHN ROW-FOGO	1897	Do.
Forestry	WM. SOMERVILLE, B.Sc., D.(Econ.	1896	Do.
Agricultural Entomology	E. A. ORMEROD, F.E.S.	1896	Do.

III.—IN THE FACULTY OF DIVINITY.

The Professors in the Faculty of Divinity, and the following additional Examiners :—

GEORGE GARDINER, B.D.		1895	University Court.
ARTHUR P. SYM., B.D.		1895	Do.

IV.—IN THE FACULTY OF LAW.

The Professors of, and Lecturers on, the several subjects, and the following additional Examiners :—

Scots Law, Conveyancing, and Forensic Medicine	ARTHUR T. GLEGG, LL.B.	1896	University Court.
Roman, Public, and Constitutional Law	J. ROBERTON CHRISTIE, LL.B.	1895	Do.
Political Economy	JOHN ROW-FOGO	1897	Do.

V.—IN THE FACULTY OF MEDICINE.

The Professors in the Faculty of Medicine, and the following additional Examiners:—

Botany	ROBERT TURNBULL, B.Sc.	1897	University Court.
Zoology	ARTHUR E. SHIPLEY, M.A.	1895	Do.
Physics	JAS. GOODWILLIE, M.A., B.Sc.	1898	Do.

Chemistry	W. H. Perkin, Ph.D.	1896	University Court.
Anatomy	Johnson Symington, M.D.	1896	Do.
Physiology	De Burgh Birch, M.D.	1897	Do.
Materia Medica	C. D. F. Phillips, M.D.	1896	Do.
Pathology	G. Sims Woodhead, M.D.	1896	Do.
Medical Jurisprudence and Public Health	R. Bruce Low, M.D.	1897	Do.
Surgery	J. Crawford Renton, M.D.	1896	Do.
Clinical Surgery	Alex. Gordon Miller, M.D.	1898	Do.
	J. M. Cotterill, M.B., C.M.	1896	Do.
	Frederick Page, M.D.	1896	Do.
Medicine	George A. Gibson, M.D.	1897	Do.
Clinical Medicine	J. O. Affleck, M.D.	1896	Do.
Midwifery	James H. Ferguson, M.D.	1897	Do.

VI.—IN THE FACULTY OF MUSIC.

The Professor of Music and Sir Alexander C. Mackenzie.

FOR SCHOOLMASTER'S DIPLOMA.

The Professor of Education and W. L. Carrie, M.A. 1897.

FOR TITLE OF LITERATE IN ARTS.

The Professors of and Lecturers on the several subjects, and the Examiners for Degrees in Arts.

—o—

University Librarian.—Hugh Alexander Webster.

Assistant Librarians.—Alexander Anderson; David Cuthbertson; Charles Martin; William Wright; George Tait; James H. S. Gregory, *at University New Buildings.*

—o—

KEEPERS OF MUSEUMS.

Anatomical Museum	Professor Sir Wm. Turner.
Do. Assistant Keeper	James Simpson.
Museum of Natural History	Professor Ewart.

—o—

Clerk of Senatus	Thomas Gilbert.
Assistant Clerks	James Dowie, John Stirton, Thomas F. Harley.
Clerk of Works	Allan E. L. Clark.
Janitor	John Chapman.
Warders	James Donaldson, James Tweeddale.
Caretaker, M'Ewan Hall	Bryce Struthers.

—o—

Organist	Thomas H. Collinson, Mus. Bac.

GENERAL COUNCIL.

President	The Right Hon. Arthur James Balfour, M.P., D.C.L., &c., Chancellor of the University.
Vice-Presidents	The Rector, The Principal, The Chancellor's Assessor, The Rector's Assessor.
Representative in Parliament	Sir William Overend Priestley, K.B., M.D., LL.D.
Convener of Business Committee	J. Campbell Lorimer, LL.B., Advocate.
Convener of Finance Committee	David D. Buchan, LL.B., S.S.C.
Secretary and Registrar	Thomas Gilbert.

Constitution of the University.

THE University of Edinburgh was originally the "College of Edinburgh" or "The Town's College," founded in 1583 by the Town Council of Edinburgh, under general powers granted by the Charter of King James VI., dated 14th April 1582. No Charter of foundation is extant; but from the first the College possessed the privilege of conferring degrees. This privilege was ratified by the "Act of Confirmation," passed in 1621, which secured to the "College of James VI." (as it had come to be called) all the rights, immunities, and privileges enjoyed by the Universities of Scotland. This ratification was renewed in the Treaty of Union between England and Scotland, and in the Act of Security. Gradually, in Acts of General Assembly, of Town Council, and of Parliament, the "College of James VI." came to be styled "The University of Edinburgh"; but it remained under the control and patronage of the Town Council down to 1858, when, by the Universities Act, all the Universities of Scotland received new and autonomous constitutions.

The University is a Corporation consisting of the Chancellor, Rector, Principal, Professors, Registered Graduates and Alumni, and Matriculated Students; and from 1858 to 1890 its government was vested in the Senatus Academicus (consisting of the Principal and the Professors), subject to the review and control of the University Court.

By the Universities (Scotland) Act 1889, the University Court was constituted a body corporate, to which the whole property belonging to the University at the passing of the Act was transferred, with full power of administration.

The Senatus, as heretofore, regulates the teaching and discipline of the University, subject to the provisions of the Universities Acts of 1858 and 1889.

CHANCELLOR.

The Chancellor is elected by the General Council for life. Changes in the ordinances and in University arrangements, proposed or approved by the University Court, must receive his

sanction. Degrees are conferred by him, or by the Vice-Chancellor. The Chancellor is President of the General Council, and nominates an Assessor in the University Court. Appointments:—

Right Hon. Lord Brougham, 1859.
Right Hon. John Inglis, D.C.L., LL.D., 1868.
Right Hon. ARTHUR J. BALFOUR, M.P., D.C.L., LL.D., &c., 1891.

VICE-CHANCELLOR.

The Vice-Chancellor, nominated by the Chancellor, may, in absence of the Chancellor, confer Degrees, but cannot discharge any other of the Chancellor's duties. In the Vice-Chancellor's absence Degrees are conferred by the Principal, or by the senior member of Senatus.

The Vice-Chancellor acts as Returning Officer at Parliamentary Elections. If there be no Vice-Chancellor at the time, the University Court appoints one to act as Returning Officer. Appointments:—

Sir D. Brewster, appointed 1860.
Sir Alexander Grant, Bart., 1868.
Sir WILLIAM MUIR, K.C.S.I., D.C.L., &c., 1885.

RECTOR.

The Rector is elected by the Matriculated Students in the University on such day in October or November as may be fixed by the University Court after consultation with the Senatus, but not later than the second Saturday in November. The term of office is three years. The next election will take place in 1899. The Rector is President of, and nominates an Assessor in, the University Court. He may, before he appoints his Assessor, confer with the Students' Representative Council. No Principal or Professor of any Scottish University is eligible. Appointments:—

Rt. Hon. W. E. Gladstone, 1859.
Thomas Carlyle, 1865.
Rt. Hon. Lord Moncreiff, 1868.
Sir W. Stirling Maxwell, Bt., 1871.
Rt. Hon. Earl of Derby, 1874.
Most Hon. Marquess of Hartington, M.P., 1877.
Rt. Hon. Earl of Rosebery, 1880.
Rt. Hon. Earl of Iddesleigh, 1883.
Most Hon. Marquess of Lothian, 1887.
Rt. Hon. George J. Goschen, M.P., LL.D., 1890.
Rt. Hon. J. P. B. Robertson, LL.D., 1893.
Rt. Hon. Lord BALFOUR OF BURLEIGH, LL.D., 1896.

REPRESENTATIVE IN PARLIAMENT.

Under Clauses 27 to 41 of the "Representation of the People (Scotland) Act," 31 & 32 Vict., cap. 48, the General Councils of the Universities of Edinburgh and St Andrews elect a Member of Parliament for these Universities.

When a poll is demanded, the votes are given by voting papers issued by the Registrar.

The appointments have been—

Sir Lyon Playfair, K.C.B., LL.D., 1868.
Rt. Hon. J. H. A. Macdonald, C.B., Q.C., LL.D., 1885, 1886.
M. T. Stormonth Darling, Q.C., 1888.
Rt. Hon. Sir Charles J. Pearson, Q.C., LL.D., 1890, 1892.
Sir WILLIAM OVEREND PRIESTLEY, K.B., M.D., LL.D., 1896.

The Parliamentary constituency for 1898 is as follows :—

Edinburgh	8253
St Andrews	1483
Total in 1898	9736

UNIVERSITY COURT.

Under the Universities Act 1858, the Court has power :—

1. To review all decisions of the Senatus, and to be a Court of Appeal from the Senatus, except as otherwise provided in the Universities Act.

2. To effect improvements in the internal arrangements of the University, after due communication with the Senatus, and with the sanction of the Chancellor; provided all such proposed improvements be submitted to the General Council for consideration.

3. To require due attention on the part of the Professors to the Regulations as to the mode of teaching and other duties imposed on the Professors.

4. To fix and regulate, from time to time, the Fees in the several Classes.

5. Upon sufficient cause shewn, and after due investigation, to censure any member of the Senatus, or to suspend him from office, and from the emoluments thereof, in whole or in part, for any period not exceeding one year, or to require him to retire on a retiring allowance, or to deprive him of office; and during the suspension of any Professor, to make provision for the teaching of his class: provided no such sentence of censure, suspension, deprivation, etc., shall have effect until approved by Her Majesty in Council.

By Sec. xix. any of the Rules and Ordinances enacted by the Universities Commissioners under the Act, may be altered or revoked by the University Court of the University to which they are applicable, but only with the written consent of the Chancellor, and with the approval of Her Majesty in Council.

By the Universities (Scotland) Act 1889, the University

Court is a body corporate with perpetual succession and a common seal; and all the property belonging to the University at the passing of the Act is now vested in that body.

By the same Act, the University Court, besides the powers conferred upon it by the Act of 1858, has power—

(1.) To administer and manage the whole revenue and property of the University, including funds mortified for bursaries and other purposes, and have all the powers necessary for the purpose.

(2.) To review any decision of the Senatus appealed against by a member of Senatus, or other member of the University having an interest, and to take into consideration all representations and reports made to it by the Senatus and by the General Council.

(3.) To review, on representation made by any of its members, or by any member of Senatus, any decision which the Senatus may come to under section seven, sub-section one, but the University Court shall not review any decision of the Senatus in a matter of discipline, except upon appeal taken either by a member of Senatus or by a member of the University directly affected.

(4.) To appoint professors whose chairs are in the patronage of the University; to appoint examiners and lecturers; and to grant recognition to the teaching of any college or individual teacher for the purposes of graduation.

(5.) To define, on application by any member of Senatus, the nature and limits of a professor's duties under his commission.

(6.) To take proceedings against a principal or professor, University lecturer, assistant, recognised teacher or examiner, or other person employed in teaching or examining, without the necessity of any one not a member of the Court appearing as prosecutor, and in such proceedings to call any member of the University to give evidence, and to require the production of documents, and to institute any inquiries it may deem necessary.

(7.) To appoint from among members of the University or others, not being members of the Senatus, one third of the members of any committee charged, by ordinance of the Commissioners, with the superintendence of any libraries or museums belonging to the University; and on representation made by any of its members, or by any member of Senatus, to review any decision which the Senatus, in the exercise of its powers, may come to in respect of the recommendations of such committee.

(8.) To appoint committees of its own number, of not less than five members, with powers to report on any business entrusted to them by the University Court, or to carry out special instructions ordered by the Court.

(9.) To elect the representative of the University on the General Medical Council, under the Medical Act 1886.

(10.) After the expiration of the powers of the Commission to found new professorships, with the approval of the Universities Committee.

The University Court, by Section 21, has power to make new ordinances, with the approval of Her Majesty in Council:

(1.) With respect to the appropriation of the sum allotted to the University by the Commissioners out of the annual grant.

(2.) Altering or revoking ordinances framed under the Universities Act 1858, or this Act; and making new ordinances: provided that such ordinances, before being submitted to Her Majesty for approval, have been communicated by the University Court to the Senatus, to the General Council, and to the University Courts of the other Universities.

Meetings of the Court are held for ordinary business on the first Monday after the 11th of each month, except August and September, and on the first Monday after 19th January, if necessary, for hearing Registration Appeals. Other meetings may be called as the Court may direct. Special Meetings may be called by order of the Rector or the Principal, or by the Secretary on a requisition specifying the object, signed by at least three members of the Court.

The University Court holds the patronage of the Chair of Music; of the new Chair of History; of the Chair of Public Health; of the Chair of Fine Art, in conjunction with the President of the Royal Scottish Academy; and a share in the patronage of the Chair of Agriculture. It also elects three of the seven Curators of Patronage, and appoints the Lecturers and the Additional Examiners for Degrees.

The Court consists of—1. The Rector; 2. The Principal; 3. The Lord Provost of Edinburgh for the time being; 4. An Assessor nominated by the Chancellor; 5. An Assessor nominated by the Rector; 6. An Assessor nominated by the Lord Provost, Magistrates, and Town Council of Edinburgh; 7. Four Assessors elected by the General Council; 8. Four Assessors elected by the Senatus Academicus; 9. Representatives of affiliated Colleges, under section 15 (4) of the Act of 1889 (if any).

Seven members constitute a quorum. The Rector and his Assessor continue in office for three years; but when the Chancellor or the Rector ceases to hold office, his Assessor continues to be a member of the Court until an Assessor is nominated by the new Chancellor or Rector. The other Assessors hold office for four years; and all Assessors are eligible for re-election. No Principal or Professor of any Scottish University is eligible as Assessor to any other person or body than the Senatus. The

Rector, and in his absence the Principal, presides at meetings of the Court, and in the absence of both a chairman is elected by the meeting. The person presiding at any meeting of the Court has a deliberative vote, and also a casting vote in case of equality.

An abstract of the proceedings of the Court is given in a subsequent part of the Calendar.

The names of the present Assessors are given on page 1. The names of the Assessors before 1888 will be found in the Historical Appendix to List of University Graduates, published in 1889 (page 105). Assessors since 1888—*Elected by Chancellor*, T. Graham Murray, LL.D., 1887-1891. *Elected by Senatus*, A. Campbell Fraser, D.C.L., LL.D., 1877-1891; Malcolm Campbell Taylor, D.D., 1889-1892; Henry Calderwood, LL.D., 1892-1897. *Elected by Town Council*, John Clapperton, 1885-1895.

UNIVERSITIES COMMITTEE OF PRIVY COUNCIL.

The Scottish Universities Committee of the Privy Council consists of the Lord President of the Privy Council, the Secretary for Scotland; the Lord Justice-General, Lord Justice-Clerk, Lord Advocate, and the Chancellor and the Lord Rector of each of the Universities, if members of the Privy Council; one member at least of the Judicial Committee of the Privy Council; and such other member or members of the Privy Council as Her Majesty may appoint.

The powers and duties of this Committee may, subject to rules or regulations passed by Her Majesty in Council, be exercised and discharged by any three or more of the members, one of whom shall be a member of the Judicial Committee of the Privy Council or a Senator of the College of Justice in Scotland.

CURATORS OF PATRONAGE.

By the Universities Act of 1858, the patronage of seventeen Chairs, previously in the gift of the Town Council, was transferred to seven Curators—three nominated by the University Court, and

four by the Town Council. The Curators also have a share in the patronage of the Chairs of Humanity, Agriculture, Civil Law, History (and Constitutional Law), Scots Law, and Conveyancing, formerly in the gift of the Town Council, and of the Chairs of Celtic and of Political Economy, instituted after the passing of the 1858 Act. The Curators hold office for three years. The names of the present Curators are given on page 2.

REPRESENTATIVE IN GENERAL MEDICAL COUNCIL.

Under the Medical Act of 1886, the University is entitled to elect a Member of the General Medical Council, who holds office for five years. Professor Sir William Turner was elected by the Senatus in December 1886. Under the Universities Act of 1889, the University Representative is now elected by the University Court, by whom Professor Sir William Turner, M.B., D.C.L., LL.D., was elected in 1891, and re-elected in 1896.

PRINCIPAL.

The Principal, formerly elected by the Town Council, now by the Curators, holds office for life. He is the President of the Senatus Academicus ; in absence of the Rector, he presides at the meetings of the University Court ; and in absence of the Chancellor and Rector he presides at the Statutory Meetings of the General Council, and also at the Special Meetings, except for the election of Assessors.

Principals Elected since 1586.

1586. Robert Rollock, *previously Regent*
1599. Henry Charteris
1620. Patrick Sands
1622. Robert Boyd
1623. John Adamson
1653. Robert Leighton
1662. William Colvill
1675. Andrew Cant
1685. Alexander Monro
1690. Gilbert Rule
1703. William Carstares
1716. William Wishart
1730. William Hamilton
1732. James Smith
1736. William Wishart, *secundus*
1754. John Gowdie
1762. William Robertson
1793. George Husband Baird
1840. John Lee
1859. Sir David Brewster
1868. Sir Alexander Grant, Bart.
1885. Sir Wm. Muir, K.C.S.I.

SENATUS ACADEMICUS.

The Principal and the Professors constitute the Senatus. This body superintends and regulates the teaching and discipline of the University. The Senatus elects four Assessors in the University Court who hold office for four years. Two retire biennially, but may be re-elected; and in case of a casual vacancy, the person elected to fill it goes out of office when the person whom he succeeded would in the ordinary rotation have retired. The Senatus appoints two-thirds of the members of the Library and the Museums Committees, receives their reports, and, subject to the review of the University Court, confirms, modifies, or rejects such reports. It also elects a representative in the General Assembly of the Church of Scotland; two Managers of the Royal Infirmary; two Governors of George Heriot's Trust; two Governors of Morrison's Academy, Crieff; two Governors of the Spence Bursary Trust; one Governor of Dollar Institution; and one Governor of Stiell's Hospital, Tranent. Degrees in Arts, Science, Divinity, Law, Medicine, and Music are conferred, on the recommendation of the Senatus, by either the Chancellor, the Vice-Chancellor, the Principal, or the senior Professor present. The Principal is President of the Senatus, with a deliberative and also a casting vote; and, in his absence, the Senior Professor present acts as Chairman, also with a double vote. The Ordinary Meetings of Senatus are held on the first Saturday after the opening of the Winter Session; the last Saturdays of November, January, February and March; the Saturday immediately preceding the Christmas vacation; the last Fridays of May, June and July; and, for conferring Degrees, in April and July on days to be fixed at the December Meeting of the Senatus of the preceding year. Extraordinary Meetings may be called by the Principal or by three Professors. One-third of the Senatus constitutes a quorum.

The Secretary of Senatus, among other duties, summons the Meetings, prepares the Minutes, and intimates business assigned to the Principal, the Faculties, the Boards of Studies, &c. He also administers the *Sponsio Academica* to Graduates.

FACULTIES.

The University now contains six Faculties, as constituted by Ordinance in 1893—viz., Arts, Science, Divinity, Law, Medicine, and Music. Each Faculty is presided over by a Dean, who is elected by the Professors of his Faculty, and who, among other duties, presents to the Chancellor or Vice-Chancellor the Graduands of his Faculty. The Deans are named on pp. 2, 3, and 4. The Chairs in the various Faculties are here given in chronological order. The Faculties as previously constituted are given in the CALENDAR for 1893-94, and in previous CALENDARS.

FACULTY OF ARTS.

The Faculty of Arts embraces the Chairs of Humanity (Latin), Greek, Mathematics, Logic and Metaphysics, Moral Philosophy, Natural Philosophy, Hebrew and Semitic Languages, History (two Chairs), Rhetoric and English Literature, Sanskrit and Comparative Philology, Commercial and Political Economy, Education, Fine Art, and Celtic.

REGENTS AND PROFESSORS IN THE FACULTY OF ARTS SINCE 1583.

Regents of Philosophy, 1583-1708.

[*The Regents of Philosophy taught in rotation the four classes in the Curriculum of Arts, the "Bajans," the "Semi-Bajans," the "Bachelors," and the "Magistrands," as the Students of the first, second, third, and fourth year were respectively styled. Each Regent therefore taught every subject in the Curriculum—the Regent of Humanity being subordinate to the Regent of Philosophy, and being employed as a tutor in Classics for Unmatriculated Students. In 1708 the system was changed, and separate Professors for Latin, Greek, Logic and Metaphysics, Moral Philosophy and Natural Philosophy, were substituted for the Regents. A Professorship of Mathematics had previously existed.*]

1583. Robt. Rollock, *first Regent*
1583. Duncan Nairn
1585. Charles Lumisdaill
1586. Adam Colt
1895. Alexander Scrimgeour
1587. Philip Heslop
1588. Charles Ferme or Fairholm
1589. Henry Charteris
1589. Patrick Sands
1594. George Robertson
1597. William Craig
1597. John Adamson
1598. James Knox
1598. Robert Scott
1601. Andrew Young
1603. James Reid
1604. David Munro
1606. Blase Colt
1607. James Fairley
1608. William King
1611. Andrew Stevenson
1625. Samuel Rutherford
1625. Robert Ranken
1626. Thomas Crawford
1626. John Brown
1631. Alexander Hepburn

1636. James Wyseman
1638. James Wright
1638. Robert Young
1639. Duncan Forrester
1644. William Tweedie
1644. James Pillans
1647. Andrew Suttie
1653. John Wishart
1665. George Sinclair
1666. John Wood
1667. William Paterson
1679. Gilbert M'Murdoch
1679. Andrew Massie
1680. Alexander Cockburn
1682. Robert Lidderdail
1684. Herbert Kennedy
1686. Thomas Burnet
1689. Alexander Cunningham
1690. William Law
1695. John Row
1695. William Scott
1701. Charles Areskine
1703. Robert Stewart
1707. Colin Drummond

Regents of Humanity, 1597-1708.

1597. John Ray
1606. Blase Colt
1611. Oliver Colt
1611. Robert Burnet
—— Andrew Stevenson
1623. Samuel Rutherford
1626. Thomas Craufurd
1630. John Armour
1633. Alexander Gibson
1636. James Wyseman
1638. Robert Young
1644. James Pillans
1653. John Wishart
1656. William Forbes
1656. James M'Gowan
1658. Hugh Smith
1663. William Cumming
1665. Andrew Ross
1665. Thomas Bell
1676. Gilbert MacMurdo
1679. Alexander Cunningham
1689. John Drummond

Professsors of Mathematics.

1620. Andrew Young
1640. Thomas Craufurd
1674. James Gregory
1683. David Gregory
1692. James Gregory
1725. Colin M'Laurin
1747. Matthew Stewart
1775. Dugald Stewart
1785. Adam Ferguson
1785. John Playfair
1805. John Leslie
1819. William Wallace
1838. Philip Kelland
1879. GEORGE CHRYSTAL

Professors of Humanity.

1708. Laurence Dundas
1728. Adam Watt
1734. John Kerr
1741. George Stuart
1775. John Hill
1806. Alexander Christison
1820. James Pillans
1863. William Young Sellar
1891. Harry Chester Goodhart
1895. WILLIAM ROSS HARDIE

Professors of Greek.

1708. William Scott, *one of the Regents*
1729. William Scott, *secundus*
1730. Colin Drummond
1738. Robert Law
1741. Robert Hunter
1772. Andrew Dalziel
1805. George Dunbar
1852. John Stuart Blackie
1882. SAMUEL HENRY BUTCHER

Professors of Logic and Metaphysics.

1708. Colin Drummond, *one of the Regents*
1730. John Stevenson
1774. John Bruce
1786. James Finlayson
1808. David Ritchie

1836. Sir Wm. Hamilton, Bart.
1856. Alex. Campbell Fraser
1891. ANDREW SETH PRINGLE PATTISON

Professors of Moral Philosophy.

1708. William Law, *one of the Regents*
1729. William Scott
1734. John Pringle
1745. William Cleghorn
1754. James Balfour
1764. Adam Ferguson
1785. Dugald Stewart
1810. Thomas Brown
1820. John Wilson
1853. P. C. M'Dougall
1868. Henry Calderwood
1898. JAMES SETH

Professors of Natural Philosophy.

1708. Robert Stewart, *one of the Regents*
1742. John Stewart
1759. Adam Ferguson
1764. James Russell
1774. John Robison
1805. John Playfair
1819. Sir John Leslie
1833. James David Forbes
1860. PETER GUTHRIE TAIT

Professors of Hebrew and Semitic Languages.

(See Faculty of Divinity.)

Professors of History.

1719. Charles Mackie
1753. John Gordon
1754. William Wallace
1755. John Pringle
1780. Alexander Fraser Tytler
1801. William Fraser Tytler
1821. Sir William Hamilton
1837. George Skene
1842. James Frederick Ferrier
1846. Cosmo Innes
1874. Æneas Jas. Geo. Mackay
1881. JOHN KIRKPATRICK
1894. GEORGE W. PROTHERO

Professors of Rhetoric and English Literature.

1762. Hugh Blair
1784. William Greenfield
1801. Andrew Brown
1835. George Moir
1840. William Spalding
1845. William Edmondstoune Aytoun
1865. David Masson.
1895. GEORGE SAINTSBURY.

Professors of Sanskrit.

1862. Theodor Aufrecht
1875. JULIUS EGGELING

Professors of Political Economy.

(See also Faculty of Law.)

1871. W. B. Hodgson
1880. JOSEPH SHIELD NICHOLSON

Professor of Education.

1876. SIMON SOMERVILLE LAURIE

Professor of Fine Art.

1880. GERARD BALDWIN BROWN

Professor of Celtic Languages, &c.

1882. DONALD MACKINNON

FACULTY OF SCIENCE.

[As Constituted in 1893 by Ordinance No. 12 (General No. 7).]

This Faculty embraces the Chairs of Mathematics, Natural Philosophy, Botany, Anatomy, Chemistry, Physiology, Natural History, Astronomy, Agriculture, Engineering, Geology, and Public Health.

PROFESSORS IN THE FACULTY SINCE ITS INSTITUTION IN 1893.

For Professors of Mathematics and Natural Philosophy, see under Faculty of Arts. For Professors of Botany, Anatomy, Chemistry, Physiology, Natural History, see under Faculty of Medicine.

Professors of Practical Astronomy.

1786. Robert Blair
1834. Thomas Henderson
1846. Charles Piazzi Smyth
1889. RALPH COPELAND

Professors of Agriculture.

1790. Andrew Coventry
1831. David Low
1854. John Wilson
1885. ROBERT WALLACE

Professors of Engineering.

1868. Fleeming Jenkin
1885. GEORGE FREDERICK ARMSTRONG

Professors of Geology.

1871. Archibald Geikie
1882. JAMES GEIKIE

Professor of Technology.

1855. George Wilson
[Chair abolished in 1859.]

Professor of Public Health.

1898.[1]

FACULTY OF DIVINITY.

This Faculty, the second in date, consists of the Chairs of Divinity, Hebrew and Semitic Languages, Ecclesiastical History, and Biblical Criticism and Antiquities.

PROFESSORS IN THE FACULTY OF DIVINITY SINCE 1620.

Professors of Divinity.

1620. Andrew Ramsay
1627. Henry Charteris
1629. James Fairley
1630. John Sharpe
1648. Alexander Colvill
1649. Samuel Rutherford
1650. David Dickson
1662. Patrick Scougall
1664. William Keith
1675. Laurence Charteris
1682. John Menzies
1683. John Strachan
1690. George Campbell
1701. George Meldrum
1709. William Hamilton
1732. James Smith
1733. John Gowdie
1754. Robert Hamilton
1779. Andrew Hunter
1809. William Ritchie
1828. Thomas Chalmers
1844. John Lee
1859. Thomas J. Crawford
1876. ROBERT FLINT

Professors of Hebrew.

1642. Julius Conradus Otto
1656. Alexander Dickson
1679. Alexander Amedeus
1681. Alexander Douglas
1692. Patrick Sinclair
1694. Alexander Rule
1702. John Goodall
1719. James Crawford
1732. William Dawson
1751. James Robertson
1792. George Husband Baird
1793. William Moodie
1812. Alexander Murray
1813. Alexander Brunton
1848. David Liston
1880. David Laird Adams
1892. John Dobie
1895. ARCHIBALD ROBERT STIRLING KENNEDY

[1] Vacant at date of issue.

Professors of Ecclesiastical History.

1702. John Cumming
1715. William Dunlop
1726. Matthew Crawford
1737. Patrick Cumming
1762. Robert Cumming
1788. Thomas Hardie
1799. Hugh Meiklejohn
1831. David Welsh
1844. James Robertson
1861. William Stevenson
1872. Robert Wallace
1876. Malcolm Campbell Taylor

Professors of Biblical Criticism and Biblical Antiquities.

1847. Robert Lee
1868. Arch. Hamilton Charteris
1898.[1]

FACULTY OF LAW.

To this Faculty belong seven Chairs, viz.:—Public Law, Civil or Roman Law, History (Constitutional, &c.), Scots Law, Forensic Medicine, Conveyancing, and Political Economy.

Professors in the Faculty of Law since 1707.

Professors of Public Law.

1707. Charles Areskine
1734. William Kirkpatrick
1735. George Abercrombie
1759. Robert Bruce
1764. James Balfour
1779. Allan Maconochie
1796. Robert Hamilton
1832. * * *
1862. James Lorimer
1890. Sir Ludovic Grant, Bt.

Professors of Civil Law.

1710. James Craig
1732. Thomas Dundas
1745. Kenneth M'Kenzie
1755. Robert Dick
1792. John Wilde
1800. Alexander Irving
1827. Douglas Cheape
1842. A. Campbell Swinton
1862. James Muirhead
1889. Henry Goudy
1893. James Mackintosh

Professors of History (Constitutional, &c.).

1719. Charles Mackie
1753. John Gordon
1754. William Wallace
1755. John Pringle
1780. Alex. Fraser Tytler
1801. William Fraser Tytler
1821. Sir William Hamilton
1837. George Skene
1842. James Frederick Ferrier
1846. Cosmo Innes
1874. Æneas Jas. Geo. Mackay
1881. John Kirkpatrick

Professors of Scots Law.

1722. Alexander Bayne
1737. John Erskine
1765. William Wallace
1786. David Hume
1822. George Joseph Bell
1843. John Schank More
1861. George Ross
1864. George Moir
1865. Norman Macpherson
1888. John Rankine

Professors of Forensic Medicine.

1807. Andrew Duncan, *secundus*
1820. William Pulteney Alison
1822. Robert Christison
1832. Thomas Stewart Traill
1862. Sir Douglas Maclagan
1897. Sir Henry Duncan Littlejohn

[1] Vacant at date of issue.

Professors of Conveyancing.

1825. Macvey Napier
1847. Allan Menzies
1856. A. Montgomerie Bell
1866. James Stuart Fraser Tytler
1892. JOHN PHILP WOOD

Professors of Political Economy.[1]

1871. W. B. Hodgson
1880. JOSEPH SHIELD NICHOLSON

FACULTY OF MEDICINE.

The Faculty consists of thirteen Chairs:—Botany, Physiology, Medicine, Anatomy, Chemistry, Midwifery, Natural History Materia Medica, Surgery, Clinical Surgery, Forensic Medicine, Pathology, and Public Health. The Professors of Medicine, Materia Medica, and Pathology, are also Professors of Clinical Medicine. Some of these Chairs were instituted in the seventeenth century, but it does not appear that the Medical School and Faculty of the University were established until the beginning of last century.

PROFESSORS IN THE FACULTY OF MEDICINE SINCE 1676.

Professors of Botany.

1676. James Sutherland
1706. Charles Preston
1712. George Preston

Professors of Medicine and Botany.

1738. Charles Alston
1761. John Hope
1786. Daniel Rutherford
1820. Robert Graham
1845. John Hutton Balfour

Professors of Botany.

1879. Alexander Dickson
1888. ISAAC BAYLEY BALFOUR

Professors of Medicine.

1685. Sir Robert Sibbald, James Halket, Archibald Pitcairne

Professors of Institutes of Medicine or Physiology.

1724. William Porterfield
1726. Andrew St Clair, John Rutherford
1747. Robert Whytt
1766. William Cullen
1773. Alex. Monro Drummond
1776. James Gregory
1789. Andrew Duncan
1819. Andrew Duncan, *secundus*
1821. William Pulteney Alison
1842. Allen Thomson
1848. John Hughes Bennett
1874. WILLIAM RUTHERFORD

Professors of Medicine.

1724. William Porterfield
1726. Andrew St Clair, John Rutherford
1747. Robert Whytt
1766. John Gregory
1773. William Cullen
1790. James Gregory
1821. James Home
1842. William Pulteney Alison
1855. Thomas Laycock
1876. Sir THOMAS GRAINGER STEWART

[1] This Chair was declared to be a Professorship in the Law as well as in the Arts Faculty by resolution of the Senatus Academicus in 1879.

Professors of Anatomy.
1705. Robert Elliot
1708. Adam Drummond
1716. John M'Gill
1720. Alexander Monro
1754. Alex. Monro, *secundus*
1798. Alexander Monro, *tertius*
1846. John Goodsir
1867. Sir WILLIAM TURNER

Professors of Chemistry and Medicine.
1713. James Crawford
1726. Andrew Plummer
1726. John Innes
1755. William Cullen
1766. Joseph Black
1795. Thomas Charles Hope

Professors of Chemistry.
1844. William Gregory
1858. Lyon Playfair
1869. ALEX. CRUM BROWN

Professors of Midwifery.
1726. Joseph Gibson
1739. Robert Smith
1756. Thomas Young
1780. Alexander Hamilton
1800. James Hamilton
1840. Sir J. Y. Simpson, Bart.
1870. ALEX. RUSSELL SIMPSON

Professors of Natural History.
1770. Robert Ramsay
1779. John Walker
1804. Robert Jameson
1854. Edward Forbes
1855. George James Allman
1870. Sir Wyv. T. C. Thomson
1882. JAMES COSSAR EWART

Professors of Materia Medica.
1768. Francis Home
1798. James Home
1821. Andrew Duncan, *secundus*
1832. Sir Robt. Christison, Bart.
1877. THOMAS RICHARD FRASER

Professors of Surgery.
1777. Alex. Monro, *secundus*
1798. Alexander Monro, *tertius*
1831. John William Turner
1836. Sir Charles Bell
1842. James Miller
1864. James Spence
1882. JOHN CHIENE

Professors of Clinical Surgery.
1803. James Russell
1833. James Syme
1869. Joseph Lister
1877. THOMAS ANNANDALE

Professors of Forensic Medicine
(See Faculty of Law.)

Professors of Pathology.
1831. John Thomson
1842. William Henderson
1869. W. R. Sanders
1881. WM. SMITH GREENFIELD

Professors of Military Surgery.
1806. John Thomson
1823. Sir George Ballingall
[Chair abolished.]

Professor of Public Health.
1898.[1]

FACULTY OF MUSIC.

Reid Professors of Music
1839. John Thomson.
1841. Sir Henry Rowley Bishop
1844. Henry Hugh Pearson
1845. John Donaldson
1865. Sir Herbert Stanley Oakeley
1891. FREDERICK NIECKS

The Principal is a member of this Faculty *ex officio*, and Professor Kirkpatrick was appointed a member by the Senatus.

[1] Vacant at date of issue.

GENERAL COUNCIL OF THE UNIVERSITY.

The Chancellor, the Members of the University Court, the Professors, and the Graduates, are entitled to be registered as Members of the General Council. The fee for registration is £1.

The Register, now containing 8253 Members, is conclusive of the rights of persons to be Members up to 1st January 1899. By the Universities Elections Amendment (Scotland) Act all candidates for graduation must pay the Registration Fee before they can appear for graduation.

Under the Universities Act of 1858, and the Commissioners' Ordinance No. 1, section 3, the Council meets twice a year—viz., on the *first Wednesday of May*, and on the *last Friday in October*, at three o'clock P.M., "*to take into their consideration* all questions affecting the well-being and prosperity of the University, and to *make representations from time to time on such questions* to the *University Court*, who shall consider the same, and return to the Council their deliverance thereon." All proposed improvements in the arrangements of the University "shall be submitted to the University Council for their consideration."

By the Universities Act 1889, besides the two statutory meetings above mentioned, the Council "may hold special meetings at the instance of the Chancellor, who shall convene such meetings on a requisition from a quorum of members, and the Council may adjourn any meeting, and may appoint Committees to investigate into and report upon any matter remitted to them or to carry out instructions given to them by the Council." The Commissioners under this Act have fixed the quorum of the General Council at ten for every thousand or fraction of a thousand of members on the register, but this provision does not apply to the statutory half-yearly meetings, or to adjourned meetings.

At the meetings of the General Council, in the absence of the Chancellor, Rector, and Principal, the Chancellor's Assessor, and in his absence the Rector's Assessor shall preside; and in the absence of all of these, a Chairman shall be elected by the meeting, but no member of Senatus can preside at any

meeting held for the election of an Assessor or Assessors. The Chairman shall decide all points of order, and has a deliberative and a casting vote; and in case of an equality of votes at the conclusion of a poll, the Chairman, or any one appointed by the University Court to act for him, shall have a casting vote.

The General Council of this University, and that of the University of St Andrews together, return a Member of Parliament.

The *Chancellor* of the University and *four of the Assessors* in the University Court are elected by the Council. The Chancellor holds office for life, and the Assessors for four years. Two of the Assessors retire biennially, but may be re-elected. In case of a casual vacancy the person elected to fill it retires when the person whom he succeeded would in ordinary rotation have retired. No member of the Senatus can vote or take part in the election of any Assessor of the General Council. The next election of two Assessors will take place at the statutory half-yearly meeting in *October* 1899.

Members of General Council are entitled to the use of the University Library on payment of an annual fee of 10s. 6d., or they may compound for such annual fee by one payment of £5, 5s.

Three Standing Committees have been appointed by the General Council—viz., a Business Committee, an Ordinances Committee, and a Finance Committee. The Conveners are:

Business Committee—J. Campbell Lorimer, LL.B.

Ordinances Committee—J. Campbell Lorimer, LL.B., Interim Convener.

Finance Committee—David D. Buchan, LL.B.

STUDENTS' REPRESENTATIVE COUNCIL.

Presidents—J. M. Hogge, Joseph Hunter, and J. Spencer Low, B.Sc. *Joint Hon. Secretaries and Treasurers*—A. F. Black, 70 Marchmont Crescent; V. E. Sorapure, The Union.

The Students' Representative Council was founded in 1884. Its aims are—(1) To represent the Students in matters affecting their interests; (2) To afford a recognised means of com-

munication between the Students and the University authorities; and (3) To promote social life and academic unity among the Students. The Council is elected annually in November, partly by the Students of the different Faculties, and partly by the recognised Students' societies. Meetings are held in November, December, January, February, March, May, June, July, and October. At the November meeting an executive committee is elected, consisting of three presidents, two secretaries and treasurers, and eleven other members, representing the five Faculties.

The Commissioners, acting under the Universities Act 1889, have issued an Ordinance to the following effect :—

(1.) The Students' Representative Council shall submit to the University Court the regulations under which it exists, and these regulations as approved shall form the constitution of the Students' Representative Council.

(2.) After the University Court has approved of the constitution, alterations must receive the approval of the University Court.

(3.) 1. The Council may petition the Senatus as to any matter affecting the teaching and discipline of the University, and the Senatus shall dispose of the matter, or shall, if so prayed, forward such petition to the University Court, with such observations as it may make thereon.

2. The Council may petition the University Court as to any matter affecting the Students other than those falling under sub-section 1.

3. This Section shall not prejudice any right of appeal under Section 6, subsection 2, of the said Act, nor the powers and jurisdiction of the Senatus, as to teaching and discipline.

MATRICULATION.

University Matriculation consists in signing the Sponsio Academica, the Student thus entering his or her name in the Album of Students of the University, and in paying a fee of £1, 1s. for the academic year (1st Oct. to 1st Oct.), or a fee of 10s. 6d. for a Summer Session (1st May to 1st October). No person shall be deemed to be a Matriculated Student or shall enjoy any of the privileges of a Matriculated Student unless, in addition to paying the matriculation fee, he is enrolled as a Student in attendance in one or more classes in the University, and has paid the fees entitling him to such attendance: Provided that nothing herein contained shall affect the right of the University Court to exact a fee in lieu of and not exceeding the matriculation fee from any candidate for any examination or

for graduation, not being at the time a Matriculated Student, in addition to the fee payable for such examination or graduation. No one can attend a University Class without matriculating, except in those special cases in which an Entrance Fee of 5s. only is exacted (see page 29).

The Matriculated Students elect the Rector of the University. In case of an equality of votes, the Chancellor, or failing him, the Principal, has the casting vote. Students are also admitted to the University Library, and on certain days to the Museum of Natural History.

Candidates for Graduation who are attending Extra-Academical Lectures in Edinburgh, and not attending Classes within the University, must, at the beginning of each year, enrol their names in a book kept for that purpose, and pay a Fee of the same amount as the Matriculation Fee. In respect of such payment they have a right to use the University Library.

Sponsio Academica signed by students on matriculating :—

QUOD FAUSTUM FELIXQUE SIT. A. D.——

Ego Universitatis Academicae Edinburgensis Discipulus sinceré ac sancté promitto quod et syngraphâ hac meâ in perpetuum testatum cupio, mihi ante omnia cordi ac curae futurum verae pietatis studium ; me etiam in assuetis academici curriculi studiis sedulum fore, ut adolescentem bene institutum decet ; et quamdiu in illo curriculo permansero praeceptoribus omnibus morigerum memet praestiturum, nec ullius dissidii aut tumultus clam palamve vel auctorem vel participem futurum, et per reliquam vitam Universitatem Academicam Edinburgensem ipsam grato et benevolo animo prosecuturum, idque omnibus officiis pro facultate mea et occasione data testaturum esse.

MATRICULATIONS (1st May 1897 to 1st May 1898).

FOR SUMMER SESSION 1897 :—

I. Faculty of Arts	13
II. Faculty of Science	11
III. Faculty of Divinity	0
IV. Faculty of Law	6
V. Faculty of Medicine	23
	53

Summer Session 1897 brought forward,		53
For Academic Year:—		
I. Faculty of Arts	749	
II. Faculty of Science	138	
III. Faculty of Divinity	59	
IV. Faculty of Law	385	
V. Faculty of Medicine	1415	
VI. Faculty of Music	16	
		2762
Total Matriculations (1st May 1897 to 1st May 1898)		2815

Non-Matriculated Extra-Academical Students in Edinburgh (1st May 1897 to 1st May 1898).

I. Faculty of Medicine:—		
Summer Session 1897	1	
Academic Year 1897-98	73	
		74
Total Non-Matriculated Extra-Academical Students (1st May to 1st May)		74

The University Court may admit non-Matriculated Students to any Class, on payment of an Entrance Fee (fixed at 5s.) in addition to the Class Fee; but such attendance (1) will not qualify for Graduation, (2) nor entitle the Student to a Certificate of Attendance, (3) nor confer any other University privilege.

Courses which may be attended under this Regulation:—

Fine Art, short additional Courses on.
Procedure and Evidence.
Mental Diseases.
Diseases of the Eye.
Clinical Instruction on Diseases of Children.
Comparative Embryology.
Forestry.
Agricultural Entomology.
Music Classes.
Practical Pathological Bacteriology.
Chemical Laboratory.
Experimental Pharmacology.
Italian Language and Literature.
Celtic (for Classes not qualifying for Graduation).
German Lit. and Prose Comp. Courses, twenty lectures each.
Advanced Practical Physiology.

International Private Law.
Physics for non-Graduation Women Students of Medicine.

Number of Non-Matriculated Students who have paid the Entrance Fee 1st May 1897 to 1st May 1898—64.

Other Courses may be sanctioned under this Regulation.

Students are subject to the disciplinary jurisdiction of the Senatus. Among offences visited with severe academic penalties may be mentioned riotous or disorderly conduct, copying at examinations, and mutilating or disfiguring books belonging to the Library.

UNIVERSITY EXAMINERS.

The Examiners for Degrees are the Professors of, or Lecturers on, the different subjects, along with additional Examiners appointed by the University Court. As a general rule, no Professor, Lecturer, or University Assistant or Demonstrator can be appointed an additional Examiner.

GRADUATION CEREMONIALS.

The relative precedence of each Faculty is as follows :—1. Divinity ; 2. Law ; 3. Medicine ; 4. Arts ; 5. Science ; 6. Music. The Deans take precedence in their respective Faculties, followed by the Members of their Faculties in the order of the dates of their Commissions.

Public Graduation Ceremonials are held annually about the middle of April (chiefly for Divinity, Law, Arts, Science, and Music), and about the end of July (for Medicine and Science). A special Ceremonial is usually held about the end of October (chiefly for Degrees in Medicine).

Graduates must appear on these occasions in Academic Costume.

ACADEMIC COSTUME.[1]

Chancellor.—Robe of Black Brocaded Satin, trimmed with Gold Lace, and with Gold Frogs down fronts and on sleeves. Black Silk Velvet Trencher, with Gold Button and Tassel.

Vice-Chancellor. — Robe and Trencher same as Chancellor's, but trimmed with Silver in place of Gold.

Rector.—Black Silk Gown, with Crimson Silk Velvet sleeves. The gown is trimmed round the collar and down the front edges with Broad Gold Lace, and the sleeves round bottom with a narrower Gold Lace. Black Silk Velvet Trencher, with Gold Button and Tassel.

[1] Graduates are requested to appear for Graduation wearing one hood only—viz., the one which indicates the Degree they are about to receive.

Principal.—Mauve Corded Silk Robe trimmed with Velvet to match. Black Silk Velvet Trencher, with Gold Button and Tassel.

Members of University Court.—Black Silk Robe, open sleeve, with Gold Frog on each sleeve.

With all of the above, Hoods appropriate to the Degree are worn.

The ordinary form of Gowns worn by Graduates of the University is the same in all the Faculties—viz., black silk or stuff, with long sleeves. The distinctive part of the costume is in the *Hood* appropriated to each Faculty. These Hoods are as follow:

LL.D.—Black *cloth*, lined with *blue* silk.

LL.B.—Black *silk*, lined with *blue* silk, bordered with white fur.

B.L.—Black *silk*, edged with *blue* silk three inches broad, trimmed with white fur.

D.D.—Black *cloth*, lined with *purple* silk.

B.D.—Black *silk*, lined with *purple* silk, bordered with white fur.

M.D.—Black *cloth*, with appended cape, lined and faced with *crimson* silk.

M.B. and C.M.—Black *silk*, lined with *crimson* silk, bordered with white fur.

D.Sc.—Black *cloth*, lined with *green* silk.

B.Sc.—Black *silk*, lined with *green* silk, bordered with white fur.

M.A.—Black *silk*, lined with *white* silk.

D.Litt.—Black *cloth*, lined with *royal blue* and *maize shot silk*.

D.Phil.—Black *cloth*, lined with *Vesuvius* and *white shot silk*.

Mus.Doc.—Rich scarlet *cloth*, with rich *white* corded silk lining.

Mus.Bac.—Scarlet *silk*, with *white* silk lining, edged with *white* fur.

The full Academic Dress for Doctors is a Gown of superfine Scarlet Cloth, loose sleeves, the cape and facings down the front covered, and the sleeves lined, with rich silk of the colour proper to the Degree. Birretum of black silk velvet.

REGULATIONS OF UNIVERSITY COURT.

I.—Absence of Professors.

1. When any Professor shall be prevented from teaching his Class for more than three successive days, an arrangement shall be made for his Class being taught in his absence; and such arrangement shall be intimated to the Dean of his Faculty.

2. When any Professor has reason to expect that the demands of his Profession may involve absence from duty for more than four days in all in the course of a Session, an arrangement similar to that in Regulation 1 shall be made and intimated to the Dean of his Faculty.

3. No arrangement for teaching a Class in absence of the Professor shall continue longer than one week without the sanction of the Senatus Academicus; or, if there be no sufficiently early meeting of the Senatus, without the *interim* sanction of the Principal and Deans Committee.

4. When any Professor shall contemplate an absence from duty of

more than one week, it shall be necessary for him to obtain the sanction of the Senatus for such absence, and for the arrangements for teaching his Class; and if his contemplated absence extend to four weeks or upwards, the sanction of the Senatus shall require the confirmation of the University Court.

5. No Professor shall employ any one other than a Colleague or University Assistant to teach his Class for him, without obtaining the sanction of his Faculty; and such sanction shall be communicated to the Senatus at its first meeting thereafter.

6. The Statement of the arrangements for teaching a Class in the absence of the Professor, submitted to the authorities of the University, shall specify the remuneration proposed to be given to the Professor's Substitute.

II.—Absence of Examiners.

1. Any University Examiner who finds himself prevented from being present at any Examination at which it is his duty to act, shall intimate this to the Dean or other Chairman of his Examining Board, who, on receiving such intimation, or otherwise becoming aware of the absence of the Examiner, shall, if possible, appoint a properly qualified Substitute to act for such Examiner.

2. In every case in which a person is appointed to act as Substitute for a University Examiner, and in which his Faculty, or Examining Committee, shall consider it necessary that the Substitute shall receive remuneration, the rate of remuneration to be paid by the Examiner (whether a Professor or Additional Examiner) to his Substitute shall be fixed by the Faculty, or Examining Committee, and shall be based upon the amount of the Fees payable to the Additional Examiners attached to the Faculty or Examining Committee.

3. All absences of University Examiners, their duration and cause, and the relative arrangements made, shall be immediately reported for approval to the Senatus Academicus by the Chairman of the Board to which the absent Examiner is attached; and a similar Report shall in every case of the absence of a University Examiner be made by the Senatus Academicus to the University Court; provided always that such arrangements shall receive immediate effect when circumstances do not permit the previous approval of the Senatus Academicus to be obtained.

4. In every case in which a Professor shall apply for leave of absence from his duties generally, provision shall be made, under the existing Regulations regarding leave of absence to Professors, for the performance of his duties as Examiner, as well as for the performance of his duties as Teacher; and provision shall be made for the remuneration of his Substitute in both capacities.

III.—Applications for Additional (or Non-Professorial) Examinerships in the University.

1. Applicants should lodge sixteen copies of their applications (one

of which should be signed), and sixteen copies of any testimonials they may desire to present, with the Secretary of the Court, not later than one week before the day fixed for making appointments in each case.

2. Applicants who send in testimonials must not send more than four for any one appointment.

3. Persons may be appointed to examine in two of the thirteen Subjects of the Examinations for Graduation in Medicine, but not more, and not in more than one Subject in any one Division of the Examinaions.

4. Every applicant for an appointment in Divinity must hold the degree of B.D. from a Scottish University.

Every applicant for an Examinership in Law must be a Bachelor of Laws of a Scottish University.

IV.—Opening of New Classes.

No class in addition to those existing in the University shall at any time be opened,—whether for the purpose of dividing the course on a subject necessary for graduation, or for teaching a class not requisite for graduation,—without the approval of the Senatus and the sanction of the University Court.

V.—Recognition of Extra-Academical Teachers.

1. Every applicant for recognition shall furnish for the information of the Authorities of the University :—

(1.) A Statement of his Registered Qualification or Qualifications, and of the name of the Office, or Appointment (if any) which he holds, as a Teacher of the Subject in which he requests recognition.

(2.) A Syllabus of his Course of Lectures; or, in the case of a Practical Class, information of a similar kind.

(3.) A Statement of the number of Lectures, and of the number of Written or Oral Examinations in the Course; or, in the case of a Practical Class, information of a similar kind.

(4.) A Short Description of his Accommodation for a Class ; and of the Apparatus, Illustrative Specimens, Diagrams, and other appliances, at his disposal for teaching the Subject in which he desires recognition.

(5.) A Statement of his opportunities of studying the Subject, and of the length of time devoted thereto.

(6.) A Statement of the experience he has had in teaching the Subject.

(7.) A Note of the Titles of his published Contributions to the Science of the Subject.

(8.) A Statement as to whether his Course or Courses of Instruction have been already recognised by any University or other examining body, and, if so, what means were adopted for ascertaining his qualifications for teaching.

2. In the case of every Applicant for recognition residing in Edin-

burgh or its neighbourhood, an inspection shall be made of his teaching Appliances and Accommodation for teaching.

3. Every recognised Extra-Academical Teacher shall annually furnish the University with the information regarding his Course or Courses which is required from the University Professors as to (1.) The number of Students attending the recognised Course or Courses of Instruction; (2.) The number of meetings for ordinary Class Work in the Session, and in each week thereof; (3.) The number of Special Written Examinations; (4.) The system of conducting the ordinary Class Work, and the number of meetings devoted to each kind of work.

4. The Certificate of Attendance granted to Students by recognised Extra-Academical Teachers, should, in all cases, state the duration of the Course and the number of Meetings for Systematic, Tutorial, and Practical Instruction, respectively; the number of occasions on which attendance was ascertained, and the number of those occasions on which the Student was present; and the number of Class Examinations held during the Course, and whether or not the Student has taken a satisfactory part in the work of the Course, including the Class Examinations, if any. The Certificate should also state the general scope of the Course; and, in particular, in the case of Chemistry, that the Course included Organic as well as Inorganic Chemistry; in the case of Midwifery, that it included the diseases of Women and Children; and, in the case of Practical Materia Medica, that it included Pharmacognosy, Pharmacy, Dispensing, and the writing of Prescriptions.

5. When application is made for the recognition of a Course taught by two or more Teachers in conjunction, information shall be given of the share to be taken by each Teacher in such conjoined Course; and the recognition of such conjoined Courses, and of each of the persons recognised as Teachers of a conjoined Course shall, *ipso facto*, terminate should one or more of the Teachers cease to conduct the Course, or should any material change be made in the share of each Teacher in the teaching of the conjoined Course.

6. The recognition of any Teacher who fails to furnish the information called for in Section 3, or an explanation relative to such failure; or who has ceased for the period of two consecutive Sessions to teach the subject on which he is recognised, shall, *ipso facto*, terminate.

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University Buildings.

THE University Buildings at present consist of: (1) The College, or University (Old) Building, with Dome, in South Bridge Street; (2) The New Buildings (School of Medicine), Teviot Place; and (3) The Music Class Room, Park Place.

I.—THE UNIVERSITY (OLD) BUILDING.

The Old Building, on the site of "Kirk o' Field," the scene of the murder of Darnley, contains the Library and Reading Rooms; the Class Rooms of the Faculties of Arts, Divinity, and Law, the Natural History, and some other Science Class Rooms; the Theological Library and Reading Room; the Examination Hall; the Physical, and the Geological and Petrological Laboratories; the Fulton Engineering Laboratory; the Physical, Geological, Fine Art, and Natural History Museums; the Senate Hall, University Court Room, and the Offices of the Senatus, the Court, and the Students' Representative Council.

The work of teaching began in 1583, but before the end of the eighteenth century, the professors and students had been very imperfectly housed. In a Memorial, dated 1768, Principal Robertson complains that the buildings, "poor in themselves, seem not to have been carried on according to any regular plan, such as takes place in other academical structures which have been erected on more opulent foundations; and hence the whole fabric has a mean, irregular, and contemptible appearance." At that time the number of students was between six and seven hundred, and that of professors twenty-one.

Twenty years later a writer in the "Scots Magazine" complains that "in 1788 the buildings of the University are in the same ruinous condition that they were in in 1768, and the most celebrated University at present in Europe is the worst accommodated." A scheme for rebuilding, often discussed, was now taken up seriously by the Town Council, encouraged by promise of liberal aid from Government. A plan was obtained from Robert Adam, then at the height of his reputation, and the foundation stone of "the New College of Edinburgh" was solemnly laid on 16th November 1789.

Adam's original plans, preserved in the Soane Museum in London, divide the space now occupied by the College buildings into two quadrangles, a smaller to the east, entered as now from South Bridge Street, and a larger beyond it to the west, with a block of academic buildings lying between. This arrangement was doubtless suggested by the rapid rise of the

ground from north-east to south-west. Round these two courts there were to be Class Rooms, Museums, a Library, and also houses for the Principal and Professors. The western side of the larger court was to be occupied by a Graduation Hall and Chapel; and the great quadrangle was to be flanked with corridors, affording communication between the class-rooms. The building, begun chiefly on the eastern and northern sides, was, however, soon stopped by the death of the architect in 1792, and by failure of funds. In 1815 a Government Commission was appointed to collect funds and to carry out the undertaking, though in a modified form. They invited plans "for finishing the College of Edinburgh, on a reduced scale, leaving out the south front, and the cross building, which formed the small court in the original plan,—regard being always had to the part already executed, and to the preservation of the architecture of Mr Adam, as far as practicable." Out of nine sets of plans sent in, those of William Henry Playfair were selected, and under his superintendence the work was practically completed in 1828, at a total cost of about £161,000.

The general character of the whole design is due to Rober Adam. Some portions were erected by him, or completed after his death from his drawings. In other parts some modification of his plans and elevations was necessary, while a third portion had to be designed anew by Playfair, who was careful to conform to Mr Adam's design. The handsome eastern façade, with its monolithic columns 22 feet in height, was erected by Adam, who intended to have embellished it with a certain amount of sculpture. He also erected the north-west corner of the great court, of which the circular Loggie form an admired feature, carried out part of the north side, and began the western block. Playfair threw the two courts into one, and designed the north and south interior elevations anew. In the western block he adhered to Adam's designs; but the interior treatment of the block, fitted up for the Natural History Museums, is his own; and the "Upper Museum," now the Natural History Laboratory, is a good specimen of his style. The "circular corners" designed by Adam for his great court

were retained by Playfair for his single quadrangle. On the exterior, the north front is Adam's, and its plainness is due to the fact that only a narrow lane instead of the broad Chambers Street then bounded the College on that side. Adam's handsome design for the south front was simplified by Playfair, but is still superior to the north elevation.

The difficulty of the levels in the quadrangle was satisfactorily overcome by Playfair by surrounding the court with a terrace, which affords a suitable architectural base for the noble buildings rising above it. But Playfair's great achievement is the Library Hall, a fine gallery 185 feet by 54 feet, with an arched ceiling enriched with cassettes, but inadequately lighted.

The general effect of the buildings is simple and dignified. The material is mainly Craigleith stone, and the detail carving is well worked out. The single quadrangle, measuring 242 feet 6 inches from east to west, by 134 feet from north to south, is a great improvement on the original plan of 1789, though the essentials of the design are due to Adam. The interior elevations of the quadrangle, especially on the west, and the eastern front to South Bridge Street, may safely be pronounced excellent specimens of the neo-classic style.

The Dome.

Adam's original design provided for a Dome over the eastern portal, but as his sketch was not very pleasing, no steps were taken to carry out this feature until 1883, when funds came into the possession of the University, bequeathed for this purpose by Robert Cox, Esq., W.S. It was then determined to carry out the Dome on a new design by R. Rowand Anderson, LL.D., Architect of the University New Buildings (School of Medicine). The present Dome, though less purely classical than the Adam-Playfair building, is pleasing and effective. An admirable finial is formed by a vigorous and athletic figure of Youth, bearing the torch of Knowledge, executed in bronze by John Hutchison, Esq., R.S.A. The Dome now contains the Fine Art Museum.

II.—THE UNIVERSITY NEW BUILDINGS.

(SCHOOL OF MEDICINE.)

In 1869 the number of students had risen to fifteen hundred,

and that of the Professors to thirty-three, while there were seventeen Class Rooms only for their use. A Committee was therefore formed in 1873, and an appeal was made to the public for subscriptions for the purchase of a site for and the erection of complete Class Rooms, Theatres, Laboratories, and Museums for the Faculty of Medicine ; for reorganising the Class Rooms in the Old Building for the Faculties of Arts, Divinity, and Law ; for providing better accommodation for the Library ; for erecting a Hall for examinations and academic ceremonials ; and for improving the north front of the College building.

This appeal to the public yielded a sum of £148,548, 2s. 5d., which, with a grant of £80,000 from Government, and interest, rents, &c., amounted to £244,587, 4s. 8d.

These buildings (the University New Buildings), begun in 1878, were partly opened for teaching purposes in October 1880, and after their completion, were transferred by the Committee to the University in October 1888. They are situated on a site formerly covered by Teviot Row, Park Street, and Park Place, and were designed by R. Rowand Anderson, LL.D., Architect, and completed under his supervision.

They contain the Lecture Rooms, &c., of the Faculty of Medicine (excepting those of Botany and Natural History), the Museums of Practice of Physic, Anatomy, Chemistry, Obstetrics, Materia Medica, and Surgery ; a Students' Reading Room, Students' Common Room, Faculty of Medicine Reception and Reading Rooms, and Office of the Faculty.

The style of architecture is Italian of the Cinque-Cento period, intermediate between the Gothic and the stiff Palladian work, which aims at a mere manipulation of the five orders. The main frontage presents a slightly projecting elevation, pierced by the archway which forms the principal entrance. Over the arch is an ornate window, flanked by pilasters, between which are niches for statuary ; and the whole is surmounted by a bold semi-circular pediment, intended to be occupied with sculpture. The façade is three storeys in height except in the projecting west wing, which has an additional floor. On the ground floor the windows are square. Above these runs a well-marked string-course orna-

mented with dentils. The first-floor windows are round-headed and furnished with architraves. Next comes a broad frieze relieved at intervals with circular panels. Over this the string-course is repeated; and the upper-floor windows are separated by pilasters, and divided by shafts supporting circular tracery. The wall is finished at the top with architrave, frieze, and cornice, and crowned with a low-pitched roof. The external features have of course been influenced by the internal arrangements.

THE M'EWAN HALL.

At a Meeting of the Acting Committee for the University of Edinburgh Buildings Extension Scheme, held on 16th November 1885, it was resolved to apply to Parliament for power to acquire houses in Park Street, adjoining the New Medical Buildings, as a site upon which to erect a University Hall; and under the Edinburgh University Buildings Extension Act 1886, certain members of the Committee were incorporated as Trustees by the name of the Edinburgh University Buildings Extension Trustees, for the purpose of acquiring the property in question and erecting a Hall. One of their number, Mr William M'Ewan, M.P., munificently offered to contribute the sum required to erect the Hall, as originally contemplated, upon condition of the cost of the site being provided otherwise. A Parliamentary grant of £8000 towards the cost of the site was obtained, and Mr M'Ewan having provided the balance required, the site was purchased. The erection of the Hall was begun in 1888 and finished in 1897, in accordance with the plans of R. Rowand Anderson, LL.D., architect; the decorations were executed by Mr William M. Palin, artist; and the Hall is equipped with a Grand Electric Organ, which is of four manuals and pedals, and contains seventy-one stops. The total cost of the Hall to the Donor was about £115,000, and as an architectural monument it is not excelled by any building in the country.

The Greek Theatre forms the basis of the design of the building. The internal diameter is 106 feet, while the height of the dome-light is 90 feet. At the south-west corner is the entrance

to the principal staircase, and on the outer circumference of the circle are two double staircases for access to the galleries. The roof is constructed entirely of steel, is domical in form, deeply panelled in the interior, and has in the centre a circular light 22 feet in diameter, which, with the clerestory windows, admits light to the Hall in the daytime. The external elevation conforms to the architecture of the early Italian Renaissance of the other University New Buildings. The great circle of the Hall is divided vertically by powerful buttresses, while horizontally the lines correspond with those of the north façade of the University New Buildings. The elevation is divided into three stages; the first panelled with circular lights, the second a blank wall, while the third stage is arcaded. On the two principal stages the buttresses have niches for figures. The wall is surmounted by a cornice and balustraded parapet; above this appears the clerestory, and over all rises the domical roof. The Hall is capable of holding upwards of 2600 people, and is used for Academic Ceremonials, high-class Concerts, and other functions approved by the University Court.

The "M'Ewan Hall," so named by the Senatus Academicus in grateful recognition of the magnificent benefaction of the Donor, was formally opened on 3rd December 1897 with an imposing ceremonial, at which the Chancellor (the Right Hon. Arthur J. Balfour, M.P.) presided. After making a statement on behalf of the Trustees, the Donor, Mr M'Ewan, handed over the Deed of Conveyance of the Hall by the Trustees in favour of the University Court; and the Chancellor acknowledged the gift on behalf of the University. The Lord Rector (Lord Balfour of Burleigh), and the Principal (Sir William Muir), as representing the University Court and the Senatus Academicus respectively, also returned thanks, and the honorary degree of LL.D. was then conferred on Mr M'Ewan, who was subsequently presented with an Address from the Students' Representative Council. In the evening a Recital on the Grand Organ was given by Dr A. L. Peace, in presence of a large audience.

III.—REID SCHOOL OF MUSIC.

The School of Music, situated immediately to the south-east of the University New Buildings, was built in 1858, from the designs of the late David Cousin. It contains the Music Class Room, with an organ of four manuals and sixty-six stops, in a handsome carved oak case; and a Museum of interesting acoustic and antique musical instruments.

The architecture of the building is in the Italian Renaissance style of the early part of the sixteenth century.

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University Library.

LIBRARY COMMITTEE.

THE Library Committee consists of not more than seven members, not being members of the Senatus, appointed by the University Court, and of such number appointed by the Senatus as shall be double the number appointed by the Court. The Committee is charged with the superintendence of the Library, and of any libraries acquired, or to be acquired, for the use of the University. The members of the Committee are appointed by the University Court and the Senatus respectively at their first meeting in the Winter Session.

Principal Sir WILLIAM MUIR,
Sir THOMAS CLARK, Bart., } *Joint Chairmen.*

Professor EGGELING,
J. BURGESS, C.I.E., LL.D., } *Joint Conveners.*

Professor Crum Brown; James Taylor Brown, Esq., LL.D.; Professor Chrystal; Andrew Mitchell, Esq.; Professor Cossar Ewart; Professor Flint; Professor Hardie; Rev. Edward F. Hœrnle, M.B.; Professor Kirkpatrick; Professor Mackinnon; J. Balfour Paul, Esq.; Professor Prothero; Professor Rutherford; Professor Saintsbury; Professor Simpson; Professor Tait; John Anthony Trail, LL.B.

In 1580 Mr Clement Littil or Little left his books to "Edinbvrgh and Kirk of God thair to reman." This collection of about 300 volumes, chiefly theological (see list in Miscellany

of the Maitland Club, vol. i., 1834), was transferred by the Town Council to the University, and became the nucleus of the University Library, which was gradually augmented by donations from citizens of Edinburgh and alumni of the University, and by the contributions of graduates.

The celebrated Poet, Drummond of Hawthornden, bequeathed his library to the University in 1627—a valuable gift, both from the eminence of the donor, and the rare specimens of early literature it embraces (see *Auctarium Bibliothecæ Edinburgenæ*, 1627).

Among noteworthy donors are Principal Adamson; Dr Robert Johnston, a physician in London; the Rev. James Nairne of Wemyss, in Fife; Dr John Stevenson, Professor of Logic and Metaphysics in the University; and Dr William Thomson, Professor of Anatomy in the University of Oxford. In 1872, Mr J. O. Halliwell, the eminent Shakespearean critic, presented his very valuable collection of works relating to Shakespeare. In 1875 a large collection of Persian and Arabic MSS. was presented by Mr J. B. Baillie of Leys; in 1879 an extensive collection of MSS. was received from the executors of David Laing, LL.D.; in 1880 the works on Economic Science collected by Professor Hodgson were presented by Mrs Hodgson; in 1882 valuable works on Sanskrit Literature were presented by the family of Dr John Muir; and in 1886 Mr Thomas Stratton bequeathed 110 works bearing on the study of Celtic In 1889 Sir William Mackinnon, Balnakill, purchased the books of Dr Cameron of Brodick, an eminent Celtic scholar, for £600, for presentation to the University; and the same year the Library received a collection of MS. Shakespeariana from Mr Halliwell-Phillipps, and a number of books belonging to the late Professor Wilson, from Mrs Wilson. A "Lorimer Collection," in memory of the late Professor Lorimer, was presented by his son-in-law, Sir David P. Chalmers. In 1895 Professor Blackie left to the Library his collection of modern Greek books; and important additions were obtained from the Goodsir bequest, and from Major Sprot, as representative of the late Dr Cleghorn of Stravithie.

The Library contains about 200,000 printed volumes, and about 7500 MSS., many of which are of great value.

The University also possesses a number of valuable pictures and busts, which adorn the Library and the Senate Hall.

The Library Hall, and the suite of rooms connected with it, occupy the south side of the quadrangle (Old Buildings).

In 1895 the following Library Regulations were laid down by Ordinance (No. 64) :—

I. The Librarian shall have the ordinary management of the Library of the University, subject to the superintendence of the Library Committee appointed under the provisions of Ordinance No. 8 [St Andrews, Aberdeen, and Edinburgh, No. 1,—Libraries and Museums].

II. The Librarian, and such Assistant-Librarians as the University Court, on the report of the Library Committee, may think necessary, shall be appointed by the University Court. The University Court shall also have the power of suspending or dismissing such Librarian and Assistant-Librarians.

III. All books ordered for the Library by the Library Committee shall be sent direct to the Librarian, and all books received by him shall be forthwith catalogued by him in such manner as the Library Committee may direct, and stamped with the Library stamp; and no person shall be allowed to use or borrow any book until it has been entered in the catalogue and stamped.

IV. The Librarian shall, with the approval of the Library Committee, from time to time prepare a list of such books, manuscripts, and other works as cannot, in consequence of any deed of gift or otherwise, be lent out of the Library ; and the Library Committee shall from time to time make such regulations as they shall think expedient for allowing access to such works for consultation.

V. Manuscripts, rare books, works of reference, and such other works as the Library Committee shall determine, shall not be lent out of the Library, except under regulations to be made by the Library Committee and approved by the Senatus Academicus and the University Court ; and, in addition to such general regulations, the Library Committee may, in each individual case of borrowing such works, impose such special conditions as they may think necessary or expedient : Provided always that every such special permission and all such additional conditions imposed by the Library Committee shall be entered in the Minute-Book of the Committee.

VI. It shall be in the power of the Librarian at any time to withdraw any work from circulation, subject to appeal to the Library Committee.

VII. It shall be in the power of the University Court, after consultation with the Senatus Academicus, and on the report of the Library Committee, to sell or exchange such works as they consider it in the best interests of the Library to dispose of.

VIII. A general inspection of the Library shall take place at such times and during such periods as the University Court, on the report of the Library Committee, shall determine, and all works whatsoever, and by whomsoever borrowed, shall be returned to the Library before the commencement of such periods, under a penalty previously fixed and publicly notified by the University Court.

IX. The Library Committee shall frame regulations to be approved by the University Court, under which the persons hereinafter mentioned may respectively

borrow or consult books. Such regulations shall prescribe, *inter alia*, (*a*) the number of books which the said persons shall be entitled to borrow; (*b*) the period for which they shall be allowed to retain them; (*c*) the penalties to be imposed in the event of their failure to return books in due time, or in the event of books being lost or injured.

The persons entitled to borrow books shall be:—

1. Members of the Senatus Academicus and University Lecturers.
2. University Assistants and Examiners.
3. The Librarian and Assistant-Librarians.
4. Matriculated Students.
5. Extra-academical Teachers, recognised by the University Court, in the town in which the University is situated.
6. Students enrolled in any Scottish University as attending the lectures of extra-academical teachers in the town in which the University is situated, and who are already entitled by Ordinance to the use of the Library.
7. Persons who have retired or who shall hereafter retire from the office of Principal or Professor.
8. Members of the University Court.
9. Members of the General Council.

Provided that no member of the University Court or of the General Council shall be entitled to obtain from the University Library books required by the Teachers or Students of the University in the prosecution of academic work and research, and that it shall be in the discretion of the Librarian, subject to appeal to the Library Committee, to decide from time to time what books are so required.

In fixing the number of books to be borrowed by the aforementioned persons respectively, due regard shall be had to the preferable claims of those engaged in teaching and studying in the University.

X. Members of the General Council shall be required, as a condition of exercising the privilege of borrowing books, to pay such subscription as the University Court shall fix from time to time.

XI. The University Court shall determine what sum, if any, shall be deposited by those entitled to borrow books.

XII. The Library Committee, with the approval of the University Court, may admit to the use of the Library, upon such conditions as to subscription and otherwise as they may require, members of the General Council of other Scottish Universities and Graduates of the University who, by reason of being under the age of twenty-one years, are not qualified to be members of the General Council.

XIII. It shall be in the power of the Library Committee from time to time to grant the use of the Library to such extent and on such conditions as they shall think expedient to persons who may not be members of the University, for purposes of literary research, and the names of those privileged readers shall be reported annually to the University Court.

XIV. So long as any Library subscription or any fine incurred remains unpaid, and so long as any person continues in possession of a book which he is not entitled to retain, the right of the defaulter to the use of the Library shall be suspended and remain in abeyance.

XV. The Library Committee shall, in an annual report to the Senatus Academicus, furnish information as to:

1. The state in which the borrowing registers are kept, and whether there is in use any finding list or other means for facilitating the recall of books.
2. The condition of the various catalogues, whether they are brought up to date or not; the amount of arrears, if any, of the cataloguing of the titles of current acquisitions; and what portions of the Library, if any, remain uncatalogued.
3. The amount of money spent in the purchase of books and periodicals respectively, and how the expenditure has been distributed among the several departments of literature and science.

XVI. At such time as shall be fixed by the Senatus Academicus the Librarian shall report to the Senatus in reference to the year then ended:

1. The particulars of every case of admission to special reading privileges.
2. The particulars of every case in which the right to the use of the Library has been suspended or is in abeyance.
3. Every case in which a book belonging to the Library has been replaced at the expense of a borrower.
4. The titles of all books belonging to the Library, known to have been lost or seriously injured, or found at the time of inspection to be amissing.
5. The titles of all books entered as missing in previous reports which have been recovered.
6. The number of accessions to the Library acquired by purchase and received in donation respectively.
7. Any other matter which the Librarian may think it of importance to bring under the notice of the Senatus Academicus, or which he may be directed by the Library Committee to report.

The Senatus Academicus shall forward the report to the University Court.

The following Regulations are at present in force:—

I. The Library is open for giving out Books to Readers, on loan or for reference, every lawful day during the Winter Session, from Ten to Four, Saturdays, Ten to One; and during the Summer Session and Autumn from Ten to Three, Saturdays Ten to Twelve; except in August, the Christmas vacation, and the week in which the Spring Holiday occurs, when the Library (not the Reading-Rooms) is open from Ten to One, except on Saturdays and holidays. The holidays are—the Queen's Birthday, Christmas Day, New Year's Day, Good Friday, and the Edinburgh Spring and Autumn Holidays. For Students' Reading-Rooms, see pages 48 and 49.

II. Each Member of Senatus, and each University Lecturer, may have at one time twenty-five volumes at most.

III. Each University Assistant may have at one time ten volumes, and not more.

IV. Each University Examiner may have five volumes, and not more.

V. The Librarian may have at one time ten volumes, and not more ; and each Assistant-Librarian four volumes, and not more : Provided books borrowed by the Librarian, or by any Assistant-Librarian, are entered in the Library Books, in the same manner as books borrowed by other persons.

VI. (1) Every Matriculated Student may have two volumes at one time, and may retain any book for two weeks ; and may re-borrow any book for successive periods of two weeks, unless applied for by another person. In exceptional cases Students may be allowed by the Library Committee to take out more than two volumes at a time : Provided that every Student, before borrowing books, must exhibit his Matriculation Ticket, and at least one Professor's Ticket, and deposit £1 at the Matriculation Office, after which his name will be enrolled in the Library books. (2) No certificate of attendance on a class may be granted by a Professor to any Student without production of evidence that the Student has duly returned all books he has borrowed from the Library.

VII. Each extra-academical teacher, recognised by the University Court, is entitled, on paying an annual subscription of ten shillings and sixpence, to take out five volumes, and not more.

VIII. Each Student enrolled as attending an extra-academical teacher in Edinburgh (under Ordinance No. 16, Edinburgh, No. 1, Section VIII., Sub-section 5) has the same Library privileges as a matriculated Student ; and no certificate of attendance on the lectures of such teacher may be given to any Student without production of evidence that the Student has duly returned all books he has borrowed from the Library.

IX. Each person who has retired from the office of Principal or Professor is entitled to take out ten volumes, and not more.

X. Each Member of the University Court and of the Library Committee is entitled to take out ten volumes, and not more.

XI. Each Member of the General Council is, in each year on paying ten shillings and sixpence to the Library, entitled to take out four volumes at a time ; and a payment of five guineas,

instead of such yearly subscription, entitles him to the like privilege for life. The year is held to date from the day on which the subscription is paid, as recorded on the reader's ticket and in the Library Books.

XII. In consideration of the annual payment of five pounds by the Royal College of Surgeons to the University, each Fellow of the College resident within ten miles of Edinburgh, is, in each year in which he pays a subscription of one guinea to the Library, entitled to take out ten volumes.

XIII. Subject to the provision as to the return of books at the annual inspection, every person in each of the above classes is entitled to retain each book for one month from the date of borrowing, if the book has been borrowed between the *first day of October* and the *thirtieth day of April inclusive*, and for two months from the date of borrowing, if the book has been borrowed between the *first day of May* and the *thirtieth day of September inclusive*, except in so far as the special rules as given above are applicable ; and further, after the expiration of such period of one month or of two months, as the case may be, he may retain each book until the annual inspection in October, unless notice is received by him requiring the return of such book. The form of notice requires the return of the book within a certain period to be specified therein, under penalty of not less than one shilling a volume, if the book be not returned within such period ; and after the expiration thereof, under a further penalty of sixpence a volume for each day, as long as the book is not returned, until the amount of the fine exceeds the sum for which the book can be replaced. Such penalties to be also specified in such notice.

XIV. A general Inspection of the Library, and of the record of borrowing and returning books, takes place (as above provided by Section VIII.) *annually in the first week of October.*

XV. During the annual Inspection, the Library is closed, and all works must be returned before the beginning of such period, under a penalty of not less than one shilling a volume ; and in the event of any volume not being returned before the expiration of one week after the last day of the inspection, the

fine is repeated weekly until such volume is returned, or until a copy of the work of equal value is, at the expense of the borrower, placed in the Library in its stead. The amount of the fine, in the case of works borrowed by special permission, may be fixed either by general regulation of the University Court, or by special condition imposed by the Library Committee.

READING ROOMS.

I. Old Buildings.

A separate collection of books is set apart for the use of Students.

Those wishing to consult books must insert in one of the slips provided for the purpose their Matriculation Number, Name and Residence, and the title of the Book, and present the slip to the Librarian in attendance.

Each slip will render the person who has signed it responsible for the book named. The counterfoil of the slip should, therefore, be reclaimed from the Librarian when the Book is returned, or whenever the Book applied for is not available.

Every volume must be returned by the borrower before leaving the Reading Room. Students are forbidden to leave the Books on the table ; they are required to hand them to the Librarian, and to get back the counterfoils. To prevent confusion, this should be done a few minutes before the close of each hour by those about to attend classes.

Besides the books in the Reading Room, each Student may consult in the Reading Room Two Volumes daily from the General Library : Provided he has handed in slips applying for them on the previous day, before 2 P.M. To such books the same rules will apply as to those consulted from the Reading Room.

No conversation or noise is permitted in the Reading Room.

The Librarian is responsible for the management of the Reading Room. Any difficulty that may arise must be referred to him, or, if necessary, through him to the Library Committee.

Students, on first applying for books in the Reading Room, must exhibit their Matriculation Tickets.

SELLAR AND GOODHART CLASSICAL LIBRARY.

This Library was instituted by private subscription in October 1897, in memory of Professors Sellar and Goodhart. It is intended as a reading-room and library of reference for Students reading for Honours in Classics. It contains nearly 1000 volumes, and is managed by a Committee consisting of the Professors of Greek and Latin, the Assistants to the Professors, and five representatives elected by the Members.

Members of Committee for 1897-98:—H. C. NORMAN, *Librarian;* J. S. ROSS, *Treasurer;* S. G. CAMPBELL, J. CRERAR, ETHELWYN LEMON.

Subscription for one year, 6s.; for Winter Session, 5s.; for Summer Session, 3s.

HONOURS PHILOSOPHICAL LIBRARY.

This Library was instituted by private subscription in January 1897, along with libraries in connection with the ordinary classes of Logic and Moral Philosophy. It is used both as a Lending Library and as a Library of Reference, and is at present placed in a small lecture-room which is intended to be used as a reading-room by Honours Students. It is managed by a Committee consisting of the Professors of Logic and Moral Philosophy, the Assistants to the Professors, and two representatives elected by the Honours Classes.

Subscription for one year, 5s.; for Winter or Summer Session, 3s.

All books taken into the Room from the General Library shall be examined and returned to their place in the General Library each day. No books shall be issued from the General Library, for use in the Reading-Room, after 3.20 in Winter or 2.30 in Summer; and all books from the General Library shall be given up in the Reading-Room at 3.45 in Winter and 2.45 in Summer.

The Reading-Room is available for either men or women Students. It is open daily, holidays and Saturdays excepted, during the Winter Session from 10 to 4 and from 8 to 10 P.M.; and during the Summer Session from 10 to 3.

A Special Reading-Room is set apart for women students.

II. New Buildings.

In the New Buildings is a Students' Reading-Room containing Books of Reference for those attending the Classes in the Faculty of Medicine. The Regulations as to consulting Books are similar to those in the Reading-Room in the Old Buildings. See p. 47. It is open daily, from 9 A.M. to 5 P.M.; Saturdays, 9 to 12. It is open in September and during the week in which the Spring Holiday occurs (Saturday excepted), from Ten to One. It is closed during August and the Christmas Vacation, and on holidays and Saturdays during the Summer Vacations.

THEOLOGICAL LIBRARY.

This Library, founded in 1698 for Students in Theology, contains above 10,000 volumes. The management is vested in six Curators, chosen by ballot by the "Cives" of the Library from their own number. Students of Divinity of this or other Scottish University are admitted as Cives on paying: the former, two shillings and sixpence; the latter, five shillings, per annum. No one who, when a Student of Divinity in this University, failed to enter as a Civis, may afterwards do so until he has paid up the arrears of two shillings and sixpence for each year of his Theological Course in which he failed to pay. No Civis can be elected a Curator unless at least in the second year of his attendance at the Divinity Hall. The election takes place in the second week of December, one-third

of the Curators going out annually by rotation. The Curators elect one of their own number to be Treasurer. The Curators and Treasurer report the state of the funds, &c., to the Cives, the Theological Faculty, and the Senatus. The books purchased are selected by the Curators, subject to the approval of the Faculty of Divinity. The Professor of Divinity, who is *ex officio* Honorary Librarian, annually appoints an acting Librarian. Books may not be kept out of the Library longer than two months.

PORTRAITS AND BUSTS IN THE SENATE HALL, LIBRARY, COURT ROOM, ANATOMICAL MUSEUM, MUSIC CLASS ROOM, AND DOME.[1]

I. PORTRAITS.

There are twenty-seven Portraits of Benefactors, Principals, Professors, and others, by Raeburn, Sir John Watson Gordon, and other Artists, in the Senate Hall, four in the Library, sixteen in the University Court Room, and one in the Music Class Room.

Portraits presented since 1890.

In Senate Hall.

James Lorimer, M.A., LL.D., Dr Jur., Professor of Public Law (1862-1890).

Joseph Black, M.D., Professor of Chemistry and Medicine (1766-1795).

In Court Room.

General Sir Joseph Straton, Benefactor of the University.

II. BUSTS.

There are forty Busts in the Upper Library Hall, two in the Anatomical Museum, and one in Room in Dome.

In order to honour and perpetuate the names of Benefactors who have founded Scholarships, Bursaries, or new Chairs in the University, the University authorities have made arrangements for placing their Busts or Portraits in the Library and University Court Room.

Regarding as Benefactors the eminent Professors who have elevated the character of the University by their writings or discoveries, the University desires to procure Portraits or Busts of James and David Gregory, Colin Maclaurin, Matthew Stewart, Dr Cullen, Dr James Gregory, Dr Alison, Dr Chalmers, Sir Chas. Bell, Lord Woodhouse-

[1] There is a separate printed Catalogue of the Portraits and Busts in the University, and of the Torrie Collection. A detailed Catalogue will also be found in the Calendar or 1890-91, p. 61, as well as in the previous Calendars.

lee, Dr Thos. Chas. Hope, Professors Ross, Macdougall, Muirhead, Sellar, Campbell Fraser, and Sir Douglas Maclagan.

Busts presented since 1890.

In Library Hall.

Rt. Hon. John Inglis, D.C.L., LL.D., Lord Justice-General, Chancellor of the University (1868-1891).

John Rae, M.D., LL.D., Arctic Explorer.

James Miller, M.D., LL.D., &c., Professor of Surgery in the University (1842-64).

John Goodsir, F.R.S., Professor of Anatomy in the University (1846-1867).

David Masson, M.A., LL.D., Professor of Rhetoric and English Literature (1865-95), presented by the contributors to the Masson Testimonial.

In Students' Reading Room.

Thomas Carlyle, Rector of the University (1865-1868).

TORRIE FINE ART COLLECTION.

Sir James Erskine of Torrie, by a Will, dated April 1834, bequeathed to the University his Pictures, Bronzes, and Marbles, "for the purpose of laying a foundation for a GALLERY for the encouragement of the Fine Arts." The collection is at present temporarily deposited in the National Gallery until funds can be obtained for its suitable display in the College, and for carrying more fully into effect the intentions of the testator.

The Pictures, forty-five in number, include choice specimens of the works of different Masters, especially in the Flemish and Dutch Schools. The Marbles, seventeen in number, and twenty-three Bronzes, have been chosen with a correct appreciation of the merits of this department, and the whole collection reflects credit on the taste and public spirit of Sir James Erskine.

Museums.

A MUSEUM COMMITTEE, consisting of three members, not being members of the Senatus, appointed by the University Court, and of six appointed by the Senatus, is charged with the superintendence of all Museums belonging to the University, and of any collections, furniture, or apparatus, or objects acquired for the use of the University or of any class therein. The members are appointed by the University Court and Senatus respectively at their first meeting in the Winter Session of each year.

Members of Committee appointed by the University Court.
Sir James Alexander Russell, M.A., M.B., C.M., B.Sc. ; Patrick Heron Watson, M.D. ; John Duncan, M.D.

Appointed by the Senatus Academicus.
Professors Sir William Turner, Tait, Geikie, Fraser, Greenfield, Rutherford.

Of the following Museums several belong partly or wholly to the Professors of the respective subjects :—

1. NATURAL PHILOSOPHY MUSEUM. A large and very valuable collection of physical apparatus, chiefly modern.

2. MUSIC AND MUSICAL INSTRUMENTS.—A very interesting and valuable collection of acoustic and musical instruments.

3. GEOLOGICAL MUSEUM.—For class purposes, showing the characters of minerals and rocks, and the typical fossils of the different geological systems.

4. FINE ART MUSEUM.—A small collection of casts, photographs, and drawings, in the Dome above the portal, illustrating the main points in the history of classical art.

5. MUSEUM OF THE ROYAL BOTANIC GARDEN. — This Museum is open to Students.

6. PHYSIOLOGICAL MUSEUM.—A large collection of Physiological Instruments, Microscopes and Microscopical Appliances, Diagrams, and Preparations, partly belonging to the Professor.

7. PRACTICE OF PHYSIC MUSEUM.—Pathological specimens, drawings, models, diagrams, etc., the property of the Professor.

8. ANATOMICAL MUSEUM.—Founded in 1800 by Dr Monro, *secundus*, who presented his own Anatomical Collection, and that of his father, to the University, "to be used by his successors for the purpose of demonstrating and explaining to the Students the structure, physiology, and diseases of the human body." In 1859, Sir David Monro, M.D., presented a collection of anatomical preparations, formed by his father, Dr Alexander Monro, *tertius*. Numerous additions were also made by Professor Goodsir, especially in the department of Comparative Anatomy, on whose death the Senatus purchased his Private Museum, and added it to the Collection. The Museum now contains several thousand specimens in illustration of Human

Anatomy, both normal and pathological, and of Comparative Anatomy.

The Conservator will gratefully receive contributions of rare and interesting specimens from Graduates and former Students. He is especially desirous of making the collection thoroughly representative of the osteology of the different Races of Men.

The Collection was transferred in 1884-5 to the University New Buildings in Teviot Place, where it is arranged in a large and handsome Hall with two galleries. It is open at certain hours to all matriculated students. The pathological collection occupies the upper gallery. The spirit-preparations in illustration of normal Human and Comparative Anatomy are arranged in the lower gallery. The osteological collection is disposed in the cases on the floor, and suspended in the centre of the Hall. In 1887 the Henderson Trustees committed to the custody of the Conservator their valuable collection of crania and casts.

Conservator of the Museum, the Professor of Anatomy ; Assistant-Conservator, Mr James Simpson.

9. CHEMISTRY MUSEUM.—Professor (afterwards Sir Lyon now Lord) Playfair, on his resignation of the Chair of Chemistry, presented to the University the chemical substances he had used in illustrating his lectures. The collection has been increased by gifts from chemical manufacturers and others, and by substances prepared in the University Laboratory.

10. THE OBSTETRICAL MUSEUM, besides a few preparations left by Professor Hamilton, contains instruments, preparations, models, and diagrams, collected by Sir James Y. Simpson, and added to by the present Professor of Midwifery, to whom they belong.

11. THE MUSEUM OF NATURAL HISTORY.—The old Museum, established in 1812 in the University, contained Zoological, Geological, and Mineralogical Collections, formed chiefly by Professor Jameson, for fifty years Professor of Natural History and Regius Keeper of the Museum. In 1854 it was transferred by the Town Council, then the Patrons of the University, to Government, and removed to the Natural History Department

of the New Museum of Science and Art, where it is still accessible to Students of Natural History and Geology.

A Zoological Museum is now being formed in the University. Graduates and others interested will greatly aid in this important undertaking by presenting specimens to the Keeper—the Professor of Natural History.

12. Materia Medica Museum.—One of the most complete collections of medicinal and food substances in this country, founded by Professor Andrew Duncan. His successor, Sir Robert Christison, added many valuable specimens, mounted for the most part by himself with singular neatness. The present Professor has made extensive additions. The Museum has been greatly enriched by interesting donations from former members of the Class in all parts of the world. There is also a Students' Reading Museum, containing specimens of the medicinal substances used in this country, formed and arranged by the present Professor.

13. Surgical Museum.—This collection, formed by Professor Spence, has been largely extended by the present Professor, to whom it belongs. Many additions have been made, both of pathological preparations and of plaster and gelatine casts, illustrative of Surgical Anatomy and Pathology. A complete catalogue may, on application, be consulted by practitioners of medicine.

ROYAL BOTANIC GARDEN AND ARBORETUM.

The Royal Botanic Garden, Inverleith Row, is connected with the University, in so far as the Professor of Botany delivers his Lectures in the Hall in the Garden.

The Garden is open daily. Specimens of plants for study are supplied to Students so far as practicable.

The Botanical Museum in the Garden is open to Students daily, and the University Herbarium, which is placed in the Garden, may be consulted between 10 and 1, and 2 and 5, under the direction of the Professor or the Curator.

The Botanical Laboratory in the Garden is open daily for work and original research.

Faculty of Arts.

Dean.—Professor Chrystal, LL.D.

Students who do not intend to graduate in Arts may attend any of the Classes on payment of the Matriculation and the Class Fees, without having passed any Preliminary Examination. Those who intend to graduate must pass the Preliminary Examination. The Classes in the Faculty are now open to Women, except a few in which provision has not yet been made for teaching them. Provision has, however, been made to admit Women to Graduation in Arts who have received the requisite instruction at certain Extra-Academic Schools in Edinburgh in the subjects in which classes are not open to them in the University.

The classes will be opened as follows, and will meet daily (Saturdays excepted), unless otherwise stated. They will meet for the last time before the Christmas vacation on Wednesday, 21st December; will re-assemble on Wednesday, 4th January 1899, and will be closed on Thursday, 30th March 1899. The Annual Graduation Ceremonial in Arts, &c., will be held on Friday, 14th April 1899.

Programme of Classes.

WINTER SESSION, 1898-99.

Classes.	Days of Opening and Hours of Attendance.	Professors and Lecturers.	Class Fees.[1]
I.—Department of Language and Literature.			
			£ s.
Junior Latin	18 Oct., 9 o'cl. & also on Mon. & Wed. 11 o'cl.	Prof. Hardie	3 3
Senior Latin[2]	18 Oct., 10 ,,		3 3
Honours Latin	20 Oct., 12 ,,		3 3
Junior Greek	18 Oct., 10 ,, & also on Tues., Thurs., & Fri., 11 o'cl.	Prof. Butcher	3 3
Senior Greek[2]	18 Oct., 11 o'cl.		3 3
Honours Greek	20 Oct., 10 ,,		3 3
Classical Archæology (Honours Course)	19 Oct., 5[3] ,,	Prof. Baldwin Brown	3 3
English	18 Oct., 4 ,,	Prof. Saintsbury	3 3
English Literature (Honours Course)[4]	19 Oct., 2 ,, / 4 Jan., 2 ,,		3 3
English Language (Honours Course)[4]	21 Oct., 3 ,, / 4 Jan., 3 ,,	G. Gregory Smith, M.A.	3 3
French (Pass)[2]	18 Oct., 3 ,,	Charles Sarolea, Ph.D., D.Litt.	3 3
French (Honours)	19 Oct., 4 ,,		3 3
Italian[5]	19 Oct., 5 ,,		3 3

[1] Fees for second, third, and subsequent attendances, see page 61.

[2] Students who wish to take the Classes of Senior Latin, Senior Greek, French or German, as qualifying for Graduation in Arts, must have previously passed in Latin (Higher Standard), Greek (Higher Standard), French, or German respectively, either as part of their Preliminary Examination or in addition thereto.

[3] The hour may be altered to suit the class.

[4] This Course may be divided into two Half-Courses. Fee for each, £2. 2s.

[5] An Honours Course may be given by Dr Sarolea. Five Shillings University entrance fee for Non-Matriculated Students.

WINTER SESSION, 1898-99—*continued.*

Classes.	Days of Opening and Hours of Attendance.	Professors and Lecturers.	Class Fees.[1] £	s.
I.—DEPARTMENT OF LANGUAGE AND LITERATURE—*cont.*				
German (Pass)[3]	18 Oct., 4 o'cl.		3	3
German Prose Composition (*Wed.*)[2]	19 Oct., 4 ,,		1	1
German Lit.[2] (*Fri.*)	21 Oct., 4 ,,	Otto Schlapp, Ph.D.	1	0
German (Honours)	19 Oct., 3 ,,		3	3
German Adv. Prose Comp. (*Wed.*)[2]	19 Oct., 3 ,,		1	1
Sanskrit (Junior Class),	19 Oct., 3 ,,	Prof. Eggeling	3	3
Do. (Senior Class)[4]	19 Oct., 4 ,,		3	3
Hebrew (Junior Class)	18 Oct., 1 ,,		3	3
Do. (Senior Class)[4]	25 Oct., 2 ,,		3	3
Arabic[4] (*Mon., Wed., & Fri.*)	26 Oct., 3 ,,	Prof. Kennedy..	3	3
Syriac[4] (*Tues. & Thurs.*)	25 Oct., 3 ,,		2	2
Celtic[4]	18 Oct., 4 ,,		2	2
Do. Advanced	24 Oct., 3 ,,	Prof. Mackinnon..	1	1
Gaelic Class	25 Oct., 3 ,,		1	1
II.—DEPARTMENT OF MENTAL PHILOSOPHY.				
Logic & Psychology.	18 Oct., 1 o'cl.	Prof. Seth Pringle Pattison	3	3
Metaphysics and Hist. of Philosophy (Honours Class)	25 Oct., 3 ,,		2	2[5]
Moral Philosophy	18 Oct., 2 ,,	Prof. Seth.	3	3
Do. Honours Class	26 Oct., 3 ,,		2	2[5]
Political Economy	18 Oct., 5 ,,	Prof. Nicholson	3	3[6]
Education (Theory, History, & Art of)	18 Oct., 3.10 ,,	Prof. Laurie	3	3
Philosophy of Law[7] (45 *Class Meetings*)	18 Oct., 2 ,,	Prof. Sir Ludovic Grant, Bart	2	2
Natural Theology (Gifford Lectureship)	Dates will be afterwards announced.	Prof. Tiele, of Leyden	Free.	

[1] Fees for second, third, and subsequent attendances, see page 61.
[2] Five Shillings University entrance fee for Non-Matriculated Students.
[3] See footnote 2, page 55.
[4] Students who wish to take the Classes of Sanskrit, Hebrew, Arabic, Syriac, or Celtic as qualifying for the M.A. Degree, must have previously passed a Preliminary Examination in these Languages equivalent in standard to the Examinations in Latin and Greek in the Preliminary Examination.
[5] When taken as a Graduation Course, £3, 3s.
[6] Or two Half-Courses, £2, 2s. each. Course up to Christmas qualifies in Economics for the B.Sc. in Agriculture.
[7] Half-Course.

WINTER SESSION, 1898-99—*continued.*

Classes.	Days of Opening and Hours of Attendance.	Professors and Lecturers.	Class Fees.[1] £	s.
III.—DEPARTMENT OF SCIENCE.				
Junior Mathematics...	18 Oct., 12 o'cl.	Prof. Chrystal...	3	3
Senior Mathematics[2 3]	18 Oct., 9 ,,		3	3
Mathematics, Intermediate Honours..	19 Oct., 11 o'cl. (*Mon., Wed., Fri.*)	Prof. Chrystal...	3	3
Do. (Advanced Honours)	19 Oct., 10 o'cl. (*Mon., Wed., Fri.*)		3	3
Natural Philosophy[2]..	18 Oct., 11 o'cl.	Prof. Tait.....	3	3
Do. (Advanced Honours, *Mon., Wed., Fri.*).....	26 Oct., 12 ,,		3	3
Physical Laboratory..	26 Oct., 10 ,,		2	2
Natural Philosophy (Intermediate Honours, *Mon., Wed., Fri.*).....	19 Oct., 9 ,,	Cargill G. Knott, D.Sc.	3	3
Dynamics, Advanced Science (*Mon., Wed., Fri.*).....	19 Oct., 10 ,,		3	3
Astronomy (*Mon., Tues. Wed. Thurs.*)	19 Oct., 12 ,,	Prof. Copeland ..	3	3
Chemistry, with Practical Chemistry	18 Oct., 10 ,, / 1 Dec., 11 & 2 ,,	Prof. Crum / Brown	4 / 3	4 / 3
Zoology[4] (Elementary)	18 Oct., 12 ,,	Prof. Ewart.....	4	4

[1] For second, third, and subsequent attendances, see page 61.

[2] Students prior to attendance on the Class of Senior Mathematics or of Natural Philosophy as qualifying for Graduation in Arts, must have passed the Intermediate or Higher Standard Examination in Mathematics either as part of their Preliminary Examination or in addition thereto.

[3] The first half of the Winter Graduation Course up to Christmas qualifies as a First Half-Course in Mathematics, and the second half, from Christmas to the end of the Session, as a Second Half-Course. *Any* First Half-Course, along with *any* Second Half-Course, taken subsequently, qualifies as a full Course of Instruction for Graduation.

[4] With Practical Zoology, a full Course, but the whole Course must extend over at least 75 separate days. Any student whose attendance on the Elementary Course of Lectures and the Elementary Practical Class of Botany or Zoology does not entitle him to a full Certificate for Graduation in Arts, may make up the seventy-five attendances required on separate days, by attending twenty-five Lectures of any other Course in the Botanical or Zoological Department, as the case may be, without additional fee.

WINTER SESSION, 1898-99—*continued.*

Classes.	Days of Opening and Hours of Attendance.	Professors and Lecturers.	Class Fees.[1] £	s.
III.—DEPARTMENT OF SCIENCE—*continued.*				
Practical Zoology (Elementary).....	18 Oct., 11 o'cl.	Prof. Ewart....	2	2[2]
Advanced Zoological Laboratory.....	... ...			
Morphology of Vertebrates (with Lab.)	19 Oct., 2 ,,	J. Beard, D.Sc...	3	3
Botany (Advanced)	18 Oct., 11 ,,	Prof. Balfour..	2	2[3]
Practical Botany (Advanced)	19 Oct., 11 ,,		3	3[3]
Geology.....	18 Oct., 4 ,,		4	4
Practical Geol. and Min. (Graduation Half-Course) up to Christmas....	21 Oct., 2 ,,	Prof. Geikie...	2	2
IV.—DEPARTMENT OF HISTORY AND LAW.				
History (Honours Course: British Constitl. History; 1384-1563)	18 Oct., 4 o'cl. (*Mon., Tu., Th.*)	Prof. Kirkpatrick.....	3	3
History (British, especially 1603-1689)	18 Oct., 12 o'cl.	Prof. Prothero	3	3
History (Honours Course on "England, Scotland and France, 1415-1485")	19 Oct., 10 ,,		3	3
Constitutional Law and History[4].....	18 Oct., 5 ,,	Prof. Kirkpatrick	4	4
Roman Law.....	18 Oct., 4 ,,	Prof. Mackintosh....	4	4[5]
History of Roman Law (44 *Class Meetings*)[6].....	... ...		2	2
Ecclesiastical History	25 Oct., 11 ,,	Prof. Taylor.....	3	3

[1] For second, third, and subsequent attendances, see page 10.
[2] Besides charge of 10s. for Laboratory Expenses.
[3] Besides Garden fee of 5s.
[4] Full Course, qualifying both for Arts and for Law Graduation, in two distinct Half-Courses.
[5] Fee for Winter Session. For Winter and Summer, £5, 5s.
[6] Half-Course.

WINTER SESSION, 1898-99—*continued.*

Classes.	Days and Hours.	Profs. and Lecturers.	Class Fees.[1] £	s.
IV.—DEPARTMENT OF HISTORY AND LAW—*continued.*				
Archæology and Art (History of).....	18 Oct., 3 o'cl.	Prof. Baldwin Brown	3	3
Classical Archæology (Honours Course, *Three days a week*)	19 Oct., 5 ,,		3	3
Public International Law (45 *Class Meetings*)[2].....	4 Jan., 2 ,,	Prof. Sir Ludovic Grant, Bart.	2	2

SUMMER SESSION, 1899.

The Classes will be opened as follows, and will be closed on Friday, 14th July.

Classes.	Days and Hours.	Profs. and Lecturers.	Class Fees.[1] £	s.	d.
I. DEPARTMENT OF LANGUAGE AND LITERATURE.					
Senior Latin (Graduation Half-Course)[3,4]	2 May, 9 o'cl.	James Mill, M.A.	2	2	0
Honours Latin (Graduation Half-Course)	2 May, 10 ,,		2	2	0
Senior Greek (Graduation Half-Course)[3,4]	2 May, 10 ,,	A. Douglas Thomson, M.A., D.Litt.	2	2	0
Honours Greek (Graduation Half-Course)	2 May, 9 ,,		2	2	0
English Literature (Honours Graduation Half-Course, *Mon., Wed., & Fri.*)	3 May, 12 ,,	G. Gregory Smith, M.A.	2	2	0
Sanskrit.....	2 May, 3 ,,	Prof. Eggeling.....	3	3	0
II. DEPARTMENT OF MENTAL PHILOSOPHY.					
Ancient Philosophy (Honours Graduation Half-Course, *Tues. and Thurs.*)..	2 May, 11 o'cl.	R. P. Hardie, M.A.	2	2	0

[1] For second, third, and subsequent attendances, see page 10.
[2] Half-course. [3] See footnote 2, page 4.
[4] The full course may be completed by attendance either for another Summer Session or for half a Winter Session.

SUMMER SESSION, 1899—*continued.*

Classes.	Days and Hours.	Profs. and Lecturers.	Class Fees.[1] £	s.
II. DEPARTMENT OF MENTAL PHILOSOPHY—*continued.*				
Ancient Philosophy (Honours Graduation Half-Course, *Mon., Wed., & Fri.*)	3 May, 11 o'cl.	R. P. Hardie, M.A.	2	2
Ethics (Honours Graduation Half-Course, *Mon., Wed., Fri.*)...	3 May, 12 ,,	[2]... ...	2	2
III. DEPARTMENT OF SCIENCE.				
Senior Mathematics (First Graduation Half-Course[3])	2 May, 11 o'cl.	Chas. Tweedie, M.A., B.Sc.	2	2
Senior Mathematics (Second Graduation Half-Course)[3].....	2 May, 12 ,,		2	2
Honours Mathematics (Graduation Half-Course)	2 May, 10 ,,	Chas. Tweedie, M.A., B.Sc..	2	2
Physical Laboratory.....	2 May, 10 ,,	Prof. Tait and Assistant.	2	2
Physics (*mainly for Students of Medicine*)	2 May, 12 ,,	Prof. Tait.	3	3
Elementary Dynamics...	2 May,	C. G. Knott, D.Sc.	2	2
Advanced Experimental Physics.....	2 May, 10 ,,	W. Peddie, D.Sc.	2	2
Practical Chemistry	2 May, 2 ,,	Professor Crum Brown.	3	3
Chemistry (Organic).....	2 May, 1 ,,		2	2
Astronomy (Adv., *Tu. & Fri.*).....	2 May, 11 ,,	Prof. Copeland.	2	2
Zoology (Elementary)[4]...	2 May, 12 ,,		4	4
Do. (Elem. Pract.).....	2 May,[5] ,,		2	2[6]
Invertebrate Zoology.....	2 May, 2 ,,		2	2
Do. (with Lab. work)			3	3[6]
Advanced Zoology (Comp. Morphol. of Invertebrata and Adv. Lab. Course)..	2 May,[5] ,,	Prof. Ewart	3	3[6]
Natural History Labor.			6	6[6]
Botany[7].....	2 May, 8 ,,	Prof. Balfour ...	4	4[8]

[1] Fees for second, third, and subsequent attendances, see page 61.
[2] Vacant at date of issue.
[3] See footnotes 2 and 3, page 57.
[4] See footnote 4, p. 57.
[5] At hours to be arranged.
[6] Besides charge of 10s. for Laboratory Expenses.
[7] With Practical Botany a full Course, but the whole Course must extend over 75 separate days. See footnote 4, page 57.
[8] Besides Garden Fee of 5s.

SUMMER SESSION, 1899—*continued.*

Classes.	Days and Hours.	Profs. and Lecturers	Class Fees.[1]
III. DEPARTMENT OF SCIENCE—*continued.*			
Practical Botany..... Field Demonstrations on *Saturdays.*	2 May, 9 o'cl.	Prof. Balfour ...	£ s. 2 2[2]
Geology (Graduation Half-Course, *Mon., Wed., Fri.*)..... Field Demonstrations *on Saturdays*	3 May, 4 ,,	Prof. Geikie.....	3 3

TUTORIAL CLASSES.

Classes.	Days and Hours.	University Assistants.	Class Fees[1]
Junior Latin (Preliminary Class).....	2 May, 12	James Mill, M.A., Lecturer on Latin Literature.	£ s. d. 2 2 0
Junior Greek (Preliminary Class).....	2 May, 11	A. Douglas Thomson, M.A., D.Litt., Lecturer on Greek Lit^re.	2 2 0
Natural Philosophy (Advanced Honours).....	2 May, 9	William Peddie, D.Sc., Lecturer on Natural Philosophy.	2 2 0
Formal Logic (Preliminary Class, Fifteen Lectures, *Tues. and Thurs.*).....	9 May, 12	R. P. Hardie, M.A., Lecturer on Logic and Metaphysics.	1 1 0
Elementary Hebrew[3]....	2 May, 10	[4]	1 11 6
Elementary Arabic.. ...	2 May, 11	[4]	2 2 0

FEES FOR SECOND, THIRD, AND SUBSEQUENT ATTENDANCES.

1. *Ordinary Graduation Classes*:—(1.) Second attendances on £4, 4s. Courses, £3, 3s.; third or subsequent attendances, £1, 1s. (2.) Second attendances on £3, 3s. Courses, £2, 2s.; third or subsequent attendances, £1, 1s. (3.) Ordinary Celtic Class, if not taken for Graduation, £2, 2s.; second or subsequent attendances, £1, 1s.

2. Second attendances on £2, 2s. Lecture Courses (not being

[1] Fees for second, third, and subsequent attendances, see above.
[2] Besides Garden Fee of 5s.
[3] To prepare Students for entering the Junior Class in Winter Session.
[4] Vacant at date of issue.

Honours Half-Courses), £1, 11s. 6d.; third or subsequent attendances, £1, 1s.

3. When fee for first attendance is less than £2, 2s., no reduction for second or subsequent attendances.

4. *Honours Courses*:—(1.) *Full Honours* £3, 3s. *Courses*—Second attendances, no reduction; third or subsequent attendances, £2, 2s. (2.) *Half-Honours* £2, 2s. *Courses*—Second attendances, no reduction; third or subsequent attendances, £1, 1s.

5. No reduction for Laboratory or Practical Courses.

The following means are afforded for Practical Instruction :—

LABORATORIES.

THE PHYSICAL LABORATORY, established with the view of affording Students a practical knowledge of the construction and use of physical apparatus, and the mode of conducting experimental inquiries, is open daily from 10 to 3, under the superintendence of Professor Tait.

The ROYAL OBSERVATORY is open to Students of Astronomy on Friday evenings from 8 P.M.

For the CHEMICAL LABORATORIES, ZOOLOGICAL LABORATORIES, ROYAL BOTANIC GARDEN LABORATORY, GEOLOGICAL AND PETROLOGICAL LABORATORY, see Faculty of Science.

MUSEUMS. See pages 51-54.

MATRICULATION, &c. See pages 27-29.

FIVE SHILLINGS UNIVERSITY ENTRANCE FEE—Classes to which applicable, pp. 29 and 30.

Courses of Lectures.[1]

1898-1899.

I.—DEPARTMENT OF LANGUAGE AND LITERATURE.

HUMANITY—(Latin).

PROFESSOR HARDIE.

Junior Class—Taught by the Assistant, under supervision of the Professor: 9 to 10, five days a week, and Mondays and Wednesdays, 11 to 12. The work of the Class consists of—

1. Readings of some Latin author, such as Virgil, Horace, Ovid, or Tibullus, Livy, Sallust, and Cicero.

2. Lectures on Roman History or Literature.

3. Exercises in Latin Prose Composition.

[1] The annual amount payable for Matriculation, Class Fees, &c., of the regular Course in Arts and Graduation Fee may be estimated at about £10, 10s.

4. Translation of passages from Latin into English, and from English into Latin "at sight."

5. Written Examinations.

Books recommended.—Bradley's Arnold's Latin Prose. Allen's Second Latin Exercise Book. Pelham's or How and Leigh's Roman History. Wilkins' Primer of Roman Literature. Wilkins' Primer of Roman Antiquities.

During the Winter Session 1898-99 the following books will be read :—Ovid, *Metamorph.*, Bks. XIII. and XIV. ; Livy, Bk. XXXVII. ; Sallust, *Jugurtha* ; Tibullus.

Senior Class—10 to 11, five days a week.

This is the class which qualifies for the ordinary Degree of M.A.[1] The work of the Class consists of—

1. Readings of some Latin author, such as Virgil, Horace, Cicero (*Letters* or *Speeches*), Tacitus.
2. Lectures on Roman History or Literature.
3. Weekly Exercises in Latin Prose.
4. Translation of Unseen Passages.
5. Written Examinations.
6. Latin Verse Composition (voluntary).

Books recommended.—Gildersleeve and Lodge's Latin Grammar ; Lindsay's Historical Latin Grammar ; Potts' Hints towards Latin Prose Composition ; Pelham's Outlines of Roman History ; How and Leigh's History of Rome ; Capes' Early Empire ; Cruttwell's History of Latin Literature ; Mackail's Latin Literature ; Companion to Latin Authors (Middleton and Mills) ; Rich's Dictionary of Antiquities.

During the Winter Session 1898-99 the following books will be read :—Virgil, *Æneid*, VIII. ; Horace, *Odes*, IV. ; Tacitus, *Annals*, I.; Juvenal, *Satire*, VII.

Third (Honours) Class—12 to 1.

The Third (Honours) Latin Class meets four days a week. It is intended to assist the studies of Candidates for Scholarships and Graduation with Honours. The work consists of—

[1] See footnote 2, page 55.

1. Readings and explanations of the more difficult Latin authors, such as Tacitus, Lucretius, Plautus, Martial, &c.

2. Lectures on Roman History and Literature, chiefly in connection with the Books read in the Class.

3. Composition, and Translation of Unseen Passages.

4. Occasional Critical Papers and Essays.

5. Written Examinations on the work done in the Class.

During the Winter Session the following books will be read :—Plautus, *Pseudolus;* Catullus, *Selections;* Tacitus, *Ann.*, I., II. ; Quintilian, X., and Early Roman Poetry (ed. Merry).

Summer Session, 1899.

JAMES MILL, M.A., *Lecturer.*

Senior Class—9 to 10, five days a week.

This class qualifies as a half-course for Graduation.[1] The work consists of—

1. The reading of the Latin authors prescribed for the Degree Examination in October 1899 and April 1900.

2. Lectures on Roman Literature, chiefly bearing on the authors read.

3. Lectures on Roman History, treating of the period prescribed for the Degree Examination.

4. Exercises in Latin Prose Composition.

5. Written Examinations on the work done in the Class.

6. Translation of passages from Latin into English, and from English into Latin "at sight."

The full Course may be completed by attendance either for another Summer Session or for half a Winter Session.

Third (Honours) Class—10 to 11.

This Class, in the Summer Session, qualifies as a half-course for Graduation with Honours in Classics. It meets four days a week, and is intended to assist the studies of Candidates for Scholarships, for Graduation with Honours, and for the Indian Civil Service. The work consists of :—

1. Readings and explanations of some of the more difficult

[1] See footnote 2, page 55.

Latin authors, such as Tacitus, Lucretius, Plautus, Martial, uvenal, Lucan, &c.

2. Lectures on Roman History and Literature, chiefly in connection with the Books read in the Class.

3. Essays on questions arising out of the Lectures or Books read, and exercises in Latin Prose Composition.

4. Written Examinations on work done in the Class, and on subjects prescribed for voluntary reading.

During the Summer Session of 1899, the books read will be selected from the programmes of work for Honours Graduation in April 1900 and April 1901.

Tutorial Class.

This Junior Class is intended for students preparing for the Preliminary Examination in October, and the work will be selected with that view. Special attention is directed to Latin Prose Composition, one exercise being done with the Class daily, and two written exercises done and corrected in each week.

GREEK.

PROFESSOR BUTCHER.

Junior Class—Taught by the Assistant, under supervision of the Professor : 10 to 11 o'clock, five days a week, and 11 to 12 on Tuesdays, Thursdays, and Fridays. The work consists of—

1. Readings of some Greek author, as Xenophon, Lucian, Plato (an easy dialogue), Homer, Euripides, or Aristophanes (selections).

2. Lectures on Greek History or Literature.

3. Exercises in Greek Prose Composition.

4. Translation of Unseen Passages.

5. Written Examinations.

Books recommended.—W. G. Rutherford's Greek Grammar, and First Greek Syntax ; F. E. Thompson's Elementary Greek Syntax ; F. E. Thompson's Homeric Syntax ; Clyde's Greek Syntax ; Jebb's Primer of Greek Literature ; Fyffe's Primer of Greek History ; Oman's History of Greece, or Cox's General History of Greece, or W. Smith's Smaller History of Greece (new ed. 1897).

Senior Class—11 to 12, five days a week.

This is the class which qualifies for the ordinary Degree of M.A.[1] The work consists of—

1. Readings of some Greek author, such as Thucydides, Demosthenes, Herodotus, Plato; Homer; a play of Aeschylus, Sophocles, Euripides, or Aristophanes.

2. Lectures on Greek Literature, History, or Philosophy.

3. Greek Prose Composition, or Translation of an Unseen Passage once a week, and a Lecture on the passage when the exercises are returned.

4. Written Examinations on the work done in the Class, and on subjects prescribed for voluntary reading.

5. Greek Verse Composition (voluntary).

Books recommended.—W. G. Rutherford's Greek Grammar, and First Greek Syntax; Munro's Homeric Grammar; Goodwin's Greek Grammar; Goodwin's Greek Moods and Tenses; Greek Syntax, by F. E. Thompson; Sidgwick's Greek Prose Composition; Jebb's Primer of Greek Literature; Müller & Donaldson's History of Greek Literature; Jevon's History of Greek Literature, or Mahaffy's History of Greek Literature, or Murray's Ancient Greek Literature; Holms' History of Greece (Translation, Macmillan); Oman's History of Greece, or Cox's General History of Greece, or W. Smith's Smaller History of Greece (new ed. 1897); Greek Verse Composition (Sidgwick and Morris); A Manual of Comparative Philology, by Giles.

During the Winter Session 1898-99, the following books will be read:—*Iliad*, V. and VI.; Demosthenes, *Olynth.*, II. and III.

Third (Honours) Class—10 to 11.

This Class meets four days a week. It is intended to assist the studies of Candidates for Scholarships and Graduation with Honours. The work consists of—

1. Readings and explanations of some of the more difficult Greek authors, such as Thucydides, Demosthenes, Plato, Aristotle, Aeschylus, Pindar, &c.

[1] See footnote 2, page 55.

2. Lectures on Greek Literature, History, or Philosophy.
3. Greek Composition, and Translation of Unseen Passages.
4. Occasional Critical Papers and Essays.
5. Written Examinations on the work done in Class.

During the Winter Session 1898-99, the chief work of the Class will be Aristotle, *Ethics*, I.-IV., and X.; Aeschylus, *Agamemnon.*

Summer Session, 1899.

A. DOUGLAS THOMSON, M.A., D.LITT., *Lecturer.*

Senior Class—10 to 11, five days a week.

This Class qualifies as a half-course for Graduation.[1] The work consists of—

1. The reading of the Greek authors prescribed for the Degree Examination in October 1899 and April 1900.
2. Lectures on Greek History or Literature.
3. Greek Prose Composition, and Translation of Unseen Passages.
4. Written Examinations.

The full Course may be completed by attendance either for another Summer Session or for half a Winter Session.

Third (Honours) Class—9 to 10.

This Class meets four days a week. It is intended to assist the studies of Candidates for Scholarships, for Graduation with Honours, and for the Indian Civil Service. The work consists of—

1. The reading of books selected from the programme of work for Graduation with Honours in 1900 and 1901.
2. Lectures on Greek History or Literature.
3. Greek Prose Composition, and Translation of Unseen Passages.
4. Written Examinations.

This Class qualifies as a half-course for Graduation with Honours. The full Course may be completed by attendance

[1] See footnote 2, page 55.

either for another Summer Session or for half a Winter Session.

Junior (Tutorial) Class—11 to 12, five days a week.

This Class is intended for Students preparing for the Preliminary Examination in October next, and the work to be done will be selected with that view.

CLASSICAL ARCHÆOLOGY.

PROFESSOR BALDWIN BROWN.

Classical Archæology may be taken as one of the optional subjects for Honours in Classics.

An Honours Course of fifty lectures will be delivered in the Winter Session, 1898-99, in the Fine Art Class Room, on Mondays, Wednesdays, and Thursdays, at 4 P.M.[1]

Additional Class-meetings of a tutorial character will be held as often as is found desirable, at hours to be afterwards arranged. The treatment of the subject will embrace—

1. A general survey of the field of study.

2. An examination of selected passages from ancient authors, bearing on the History of Classical Art.

3. A special study of one particular branch, the theme for 1898-99 being the History of Greek Vase Painting. (Other special subjects, such as the Types of Greek Coins, with special reference to their value as illustrating Greek Sculpture, will be taken up in succeeding Sessions.)

The text-books will be—Overbeck's "Schriftquellen" (a collection of passages from ancient authors bearing on Classical Art); Murray's "Handbook of Greek Archæology" (London, John Murray); E. Gardner's "Handbook of Greek Sculpture" (Macmillan & Co.); and, for the special subject, Harrison and M'Coll's "Greek Vase Painting" (Fisher Unwin).

The themes will be treated from the artistic standpoint, which is now more and more insisted on by writers on this subject. A high degree of accuracy and considerable acquaintance with the chief Greek and Latin authorities will be required of Candidates

[1] The Class days and hour may be changed if others are found more convenient.

for Honours, but no previous special knowledge either of Art or of Archæology will be expected of those joining the Class. The different branches, so far as time permits, will be opened up from the beginnings, and students will be assisted in the Tutorial Classes to understand technical terms and to appreciate the artistic points which come up for discussion in the Lectures. They will also have access at suitable times to the collection of illustrations referred to in the Lectures, and to the Class Library, which contains some of the standard works.

RHETORIC AND ENGLISH LITERATURE.

PROFESSOR SAINTSBURY.

(*Ordinary Course*, 4 *to* 5, *five days a week throughout the Winter Session.*)

On Mondays, Wednesdays, and Fridays, the Lectures will be devoted, before Christmas, to a survey of Style both in Poetry and Prose from Chaucer to the Nineteenth Century; after Christmas to a similar survey of the General History and Contents of the Subject from the earliest texts to the present day. On three Fridays during the Session there will be Class Examinations, and at convenient intervals between them written Exercises will be done on Friday in Class. Two subjects for longer written Essays will also be given, one before, one after Christmas: and there will be Prizes for these Essays, distinct from the general Class Prizes.

On Tuesdays and Thursdays the Lectures will take for text the books prescribed for the year, some of which will be read page by page and line by line, while others will be dealt with more summarily. A certain number of these Lectures will be specially devoted to the subject of Rhetoric, the text being De Quincey's Essay, with Whately's *Rhetoric*, Bain's *Composition and Rhetoric*, and Hodgson's *Errors in English* for illustration. The prescribed books will always include parts of Chaucer, Spenser, Shakespeare, and Milton, together with portions of other writers from the sixteenth century to the

present day. The Lectures on Style will be illustrated from Ward's *Poets* and Craik's *Prose Selections.*

(*Honours Course, 2 to 3, three days a week in the Winter Session.*)

The Professor will also give an Honours Course in two Halves of twenty-five Lectures each. The Half-Course before Christmas will be a Higher Rhetoric Course on the Theory of Prose and Verse in English, opening with a sketch of the History of Literary Criticism from Aristotle onwards. The course after Christmas will be devoted to some special subject connected with the Honours period of the year. The subject for 1899 will be "English Poetry from 1798 to 1825": that for 1900, "English Romances in Prose and Verse during the Fourteenth and Fifteenth Centuries."

Honours Courses.

G. GREGORY SMITH, M.A., *Lecturer.*

OLD AND MIDDLE ENGLISH.

A full Honours Course of Fifty Lectures (in two parts of Twenty-five Lectures each) on Old and Middle English will be delivered in the Winter Session.

A.—HISTORY OF OLD AND MIDDLE ENGLISH.

The work of this Class (Monday, Wednesday, and Friday from 3 to 4, beginning Friday, 21st October) will consist of—

1. An Historical Outline of the Development of the English Language, in regard to Phonetics, Accidence, Syntax, and Vocabulary. Special attention will be given to the Dialects.

2. English Palæography.

Books for reference.—Sweet's *Oldest English Texts* and *History of English Sounds;* Ellis's *Early English Pronunciation;* Sievers's *Old English Grammar* (ed. Cook); Kellner's *Historical Outlines of English Syntax;* Skeat's *Principles of English Etymology* (First and Second Series); Oliphant's *Old and Middle English;* Murray's *Dialect of the Southern Counties of Scotland* (Introduction); Skeat's *Facsimiles of Old English Manuscripts.*

B.—Old and Middle English Texts.

The work of this Class (Monday, Wednesday, and Friday from 3 to 4, beginning Wednesday, 4th January) will consist of (*a*) Readings in Old and Middle English, including some of the texts prescribed for the Examination for the Honours Degree, and (*b*) Translation of Unseen Passages.

Summer Session, 1899.

English Literature.

An Honours Half-Course of Twenty-five Lectures on the Literature of the Fifteenth Century.

The Class will meet on Monday, Wednesday, and Friday from 12 to 1.

Books for reference.—Morley's *English Writers*, VI. and VII.; Ten Brink's *English Literature*, III.; Ward's *English Poets*, I.; Craik's *English Prose*, I.

FRENCH LANGUAGE AND LITERATURE AND ROMANCE PHILOLOGY.

CHARLES SAROLEA, PH.D., LITT.D., *Lecturer.*

Ordinary Graduation Class—3 to 4, five times a week.

This class qualifies for the Ordinary Degree of M.A.[1] The work consists of—

1. Readings of some French author, such as Victor Hugo, *Extraits;* J. J. Rousseau, *Petits Chefs-d'œuvre;* Clédat, *Morceaux choisis des Auteurs du Moyen-Age;* Mignet, *Révolution Française;* Taine, *Extraits; Théâtre choisi de* Corneille, Molière and Racine.

2. Lectures on French Literature or History.

3. French Prose Composition, or Translation of an unseen passage once a week, and a lecture on the passage when the exercises are returned.

[1] See footnote 2, page 55.

4. Written Examinations on the work done in the Class, and on subjects prescribed for voluntary reading.

5. Lectures on the Philology and Historical Development of the French language.

Books to be read during the Winter Session 1898-99 :— Victor Hugo, *Chefs-d'œuvre poetiques;* J. J. Rousseau, *Contrat Social;* Montaigne, *Essais;* Michelet, *Précis de la Révolution Française;* Montesquieu, *Esprit des Lois;* Pascal, *Pensees: Chanson de Roland;* Faguet, 18e *Siècle.*

Honours Class—4 to 5.

The Honours French Class meets four days a week. It is intended to assist the studies of Candidates for Scholarships and Graduation with Honours. The work consists of—

1. Readings and explanations of Old French Texts, and of some of the more difficult Modern French authors.

2. Lectures on French Literature or History, and on Romance Philology.

3. French Composition and Translation of unseen passages.

4. Occasional critical papers and essays.

5. Written Examinations on the work done in the Class, and on subjects prescribed for voluntary reading.

Books to be read during the Session 1898-99 :—V. Hugo, *Shakespeare, Année Terrible, Chanson de Roland;* Michelet, *Révolution;* Taine, *Extraits;* Faguet, *Politiques et Moralistes; Théâtre de* Molière, Racine, Corneille.

ITALIAN LANGUAGE AND LITERATURE AND ITALIAN PHILOLOGY.

Course of Fifty Lectures on the Honours Standard.

CHARLES SAROLEA, PH.D., LITT.D., *Lecturer.*

This Class meets three days a week. The work consists of—

1. Readings and explanations of Italian Classics of the 14th and 16th century (with special regard to Dante), and of some of the more difficult modern Italian authors.

2. Lectures on Italian Literature and History, and on Italian Philology.

3. Occasional critical Papers and Essays.

4. Written Examinations on the work done in the Class, and on subjects prescribed for voluntary reading.

Books to be read during the Session 1898-99 :—Dante, "Divina Commedia," "De Monarchia"; Manzoni, "I promessi Sposi"; Leopardi, Prose ; D'Ancona, "Manuale della Litteratura italiana."

Students who desire to attend this Course are requested to send their names to Dr Sarolea, University, before 1st October.

GERMAN LANGUAGE AND LITERATURE AND TEUTONIC PHILOLOGY.

OTTO SCHLAPP, PH.D., *Lecturer.*

Ordinary Graduation Class—4 to 5, five times a week.

This class qualifies for the Ordinary Degree of M.A.[1] The work consists of—

1. Readings of some Middle High German and Sixteenth Century Texts, and of such modern German authors as Winckelmann, Klopstock, Lessing, Herder, Goethe, Schiller, Jean Paul F. Richter, Heine, Uhland, Freytag, Riehl, and Storm.

2. Lectures on German Literature or History.

These lectures, the subject of which will be announced in due time, will be delivered *in German* on Fridays, and may be taken as a separate course on payment of a Class Fee of One Guinea, and in the case of non-matriculated students of an additional Five Shillings University Entrance Fee.

3. German Prose Composition, or translation of an unseen passage, or a critical paper or German essay at least once a week, and a lecture on the papers when returned.

Twenty Class Meetings (on Wednesdays) will be devoted to German Prose Composition, and may be taken as a *separate*

[1] See footnote 2, page 55.

course on payment of a Class Fee of One Guinea, and in the case of non-matriculated students, of an additional Five Shillings University Entrance Fee.[1]

4. Written Examinations on the work done in the Class, and on subjects prescribed for voluntary reading.

5. Lectures on the Philology and Historical Development of the German Language.

Books recommended.—Weisse, *German Grammar;* Vietor, *German Pronunciation;* Duden, *Etymologie der Neuhochdeutschen Sprache;* Behagel, *Die Deutsche Sprache;* O. Weise, *Unsere Muttersprache;* Koch, *Geschichte der Deutschen Litteratur* (Göschen); Roquette, *Geschichte der Deutschen Dichtung;* W. Wackernagel (ed. E. Martin), *Geschichte der Deutschen Litteratur;* D. Müller, *Leitfaden zur Geschichte des deutschen Volkes.*

During the Winter Session 1898-99 the following texts will be read or interpreted:—Meier Helmbrecht; Luther; Kunst and Volkslied; Goethe, *Aus meinem Leben;* Uhland, *Gedichte.*

Honours Class—3 to 4.

The Honours German Class meets four days a week. It is intended to assist Candidates for Scholarships and Graduation with Honours. The work of this Class is carried on in *German*, and consists of—

1. Readings and explanations of Old, Middle, and Early Modern High German Texts, and of some of the more difficult modern authors.

2. Lectures on German Literature or History.

3. German Composition, Translation of unseen passages, occasional critical papers and German essays, and a lecture on the papers when returned.

Twenty Class meetings (on Wednesdays) will be devoted to advanced German Prose Composition, and may be taken as a *separate course* on payment of a Class Fee of One Guinea, and

[1] Non-matriculated students taking this class must be at least eighteen years of age.

in the case of non-matriculated students of an additional Five Shillings University Entrance Fee.

4. Written Examinations on the work done in Class, and on subjects prescribed for voluntary reading.

5. Lectures on the Philology and History of the German Language.

Books recommended.—In addition to those mentioned for Ordinary Graduation Class: Brandt, *German Grammar;* D. Sanders, *Deutscher Wortschatz;* F. Kluge, *Etymologisches Wörterbuch der deutschen Sprache;* F. Blatz, *Neuhochdeutsche Grammatik;* Victor Henry, *Comparative Grammar of English and German;* Hermann Paul, *Mittelhochdeutsche Grammatik;* W. Scherer, *Geschichte der deutschen Litteratur;* Jul. Schmidt, *Geschichte der deutschen Litteratur von Leibniz bis auf unsere Zeit.*

During the Session 1898-99 the following texts will be read or interpreted:—*Althochdeutsche Litteratur;* Hartmann von Aue, etc.; *Das deutsche Heldenbuch;* Herder, *Von deutscher Art und Kunst;* Schiller, *Philosophische Schriften; Hamlet;* Platen, *Gedichte.*

SANSKRIT AND COMPARATIVE PHILOLOGY.

PROFESSOR EGGELING.

A.—Sanskrit Language and Literature.

1. *Junior Class.*—Grammar and Exercises. Easy Texts (from Lanman's Reader). Easy translations from English into Sanskrit.

2. *Senior Class.*—Repetition of Grammar. Translations from English into Sanskrit. Texts, such as the Hitopadeśa, Kālidāsa's Raghuvanśa or Śakuntalā; Mricchakatikā; Manu's Institutes of Law; selected Hymns of the Rigveda (Lanman's Reader).

The Senior Class will be the Graduating Class in Sanskrit for the Ordinary M.A.; but those who attend with a view to Graduation must previously have passed an examination under Sect. IV., subs. 3 of the Ordinance, which will include plain passages for translation from and into Sanskrit, and grammatical questions.

Those who propose, in a subsequent session, to take up Sanskrit as a graduation subject, may attend the Junior Class during the Session 1898-99.

B.—Comparative Philology.

During the Session 1898-99, the Professor will be prepared to deliver a course of Fifty Lectures on the Principles of Indo-European Philology and the history of Linguistic Studies, provided a sufficient number of Students give in their names. This course will qualify as one of the optional Honours Classes in connection with Classical Honours.

HEBREW AND SEMITIC LANGUAGES.

PROFESSOR KENNEDY.

See Courses under Faculty of Divinity.

Arts Students are strongly advised to begin their study of Hebrew and Arabic by taking the Summer Tutorial Classes, see pages 272, 273.

CELTIC.

PROFESSOR MACKINNON.

The Course for 1898-99 will be arranged as follows :—

1. *Lectures.*—During the Session a course of fifteen to twenty lectures will be delivered on The History and Literature of the Scottish Highlands (1000 A.D.—1600 A.D.), and a similar course on Gaelic Phonetics and Inflexions.

2. *Reading and Exposition.*—(1) Scottish Gaelic: Extracts for Reading, Part II.; Stewart's Grammar. (2) Irish Gaelic: Keating's Three Shafts of Death; O'Donovan's Grammar. (3) Old Gaelic: Extracts for Reading, Part II.; Windisch's Grammar and Irische Texte.

3. *Translations from English into Modern and Old Gaelic.*

Any student who attends this Class with a view to Graduation in Arts must previously have passed an examination (under Sect. IV., subs. 3 of the Ordinance), which will be in Scottish Gaelic, or Irish Gaelic, or Welsh; and will include translations from and into English, with grammatical, literary, and easy philological questions.

The fee for a Student who attends with a view to graduation is £3, 3s.

An Advanced Class will meet in the Winter Session, 1898-99, on Monday and Friday, at 3 P.M. The Class will read Old Gaelic Texts from print and manuscript.—Fee, £1, 1s.

A Gaelic Class for Junior students will meet in the Winter Session 1898-99, Tuesday, Wednesday, and Thursday, at 3 P.M. Students will read Modern Scottish and Irish Gaelic, and commence the study of Old Gaelic. Grammar and Exercises.—Fee for this class, £1, 1s.

Text-Books.—Extracts for Reading, Parts I. and II. ; Stewart's and Joyce's Grammar ; Windisch's Grammar.

II.—DEPARTMENT OF MENTAL PHILOSOPHY.

LOGIC AND METAPHYSICS.

PROFESSOR SETH PRINGLE PATTISON.

Logic and Psychology—Junior Class—1 to 2.

The course in this class falls into three parts :—

(1) Elements of Logic, Deductive and Inductive; (2) Outline of the main facts of Empirical Psychology, dealing more particularly with the facts and processes of cognition ; (3) Introduction to the questions of philosophy, with special reference to the history of modern philosophy in England.

1. In the Logical part of the course the text-book used is Jevons's "Elementary Lessons in Logic."

It is extremely desirable that students, before entering the class, should have familiarised themselves with the main doctrines of Formal Logic; and a tutorial class (Fifteen Lectures) for those who desire it is held in summer by Mr Hardie, Assistant to the Professor. An examination is held about a fortnight after the opening of the Winter Session to test the knowledge of the class. It embraces the first seventeen Lessons in Jevons with the exception of Lessons 4, 6, 7, 10, 11, and 13 ; for Lesson 10 students should substitute a printed

chapter which they may obtain on application at the Matriculation Office. For those who fail to reach a reasonable standard in this examination, separate tutorial meetings will be held during the early part of the session.

The lectures in Logic will assume this elementary knowledge to have been acquired, and will be devoted mainly to the principles of the subject. The chief theories of the Judgment and the ultimate nature of Inference will be discussed and references given to more advanced text-books.

2. In the Psychological division of the course no text-book is prescribed, but frequent reference is made to the leading works on the subject, and a manual such as Sully's "Outlines," Höffding's "Outlines," James's "Text-book," or Baldwin's "Elements," may be usefully read in connection with the lectures.

The lectures cover the chief topics of the Psychology of Cognition, with the Psychology of the Feelings and the Will in outline.

3. The Philosophical lectures give a sketch of the development of speculative thought in Ancient Greece and then pass to the beginnings of Modern Philosophy. Bacon, Descartes, Locke, Berkeley, and Hume are studied in succession.

Professor Fraser's "Selections from Berkeley" and certain chapters of Locke's "Essay" and Hume's "Enquiry" are used in connection with the lectures as an introduction to the problems of modern philosophy.

Metaphysics and History of Philosophy—Honours Class—3 to 4.

This Class, an Honours Course of Fifty Lectures, is intended for those who have attended the ordinary course, or have otherwise some acquaintance with philosophy. The lectures deal in a more advanced way with the chief systems of modern philosophy, special attention being devoted to Spinoza and Kant. Guidance is also given in the study of Advanced Psychology, and some of the Lectures deal with the problems of Advanced Logic.

Lectures on Greek Philosophy are delivered as a part of this Course by Mr Hardie, Assistant to the Professor and Lecturer in Logic and Metaphysics.

The Class meets on Tuesday and Thursday throughout the Session, and during part of the Session at a separate hour for the Lectures on Greek Philosophy.

Summer Session, 1899.

R. P. HARDIE, M.A., *Lecturer.*

Honours Courses in Ancient Philosophy.

Each of the following will constitute a Half-Course qualifying for Honours in Mental Philosophy and in Classics :—

A.—Subject, Plato chiefly, but other subjects will be treated, in accordance with the requirements of the Class.

Books.—Two at least of the following :—Plato, *Republic*, *Theaetetus*, *Philebus;* Ritter and Preller, *Historia Philosophiae Graecae*, Sections 1-173.

B.—Subject, Aristotle.

Books.—Two at least of the following :—Aristotle, *De Anima* and *Nicom. Ethics*, especially Bks. I.-IV. and X.; Trendelenburg, *Elementa Logices Aristoteleæ.*

Tutorial Class in Elementary Logic.

This Course of Fifteen Lectures on Logic is intended to prepare Students for the Ordinary Class of Logic and Metaphysics.

MORAL PHILOSOPHY.

PROFESSOR JAMES SETH.

Ordinary Class—2-3.

After an introductory statement of the problem and method of Ethics, a sketch of the development of moral ideals in primitive, ancient, and modern times will be given, with the object of awakening reflection upon the central question of ethical science—the nature of the Moral Ideal. The investigation of this question will occupy the larger part of the course, and will be based upon a critical study of the chief systems

of Ethics, in the light of their historical development. The application of the general principle thus reached to the regulation of the moral life, individual and social, will next be considered, special attention being given to the ethical basis and functions of the Family and the State, and to some of the more concrete aspects of current morality. The course will close with a discussion of the metaphysical implications of ethical theory, more particularly the question of Freedom.

The Course will consist of lectures, discussions, written examinations and essays. The text-book will be the Professor's *Ethical Principles*, and a special study will be made of Butler's *Sermons on Human Nature*, Mill's *Utilitarianism*, and Spencer's *Data of Ethics*, as well as of some portions of Aristotle's *Ethics*.

Honours Class—3 to 4 on Wednesday and Friday.

Lectures on the History of Ethics, ancient and modern, with special reference to the development of the several theories, in their relations to one another and to the general influences, metaphysical and social, of their time. Sidgwick's *History of Ethics* and Jodl's *Geschichte der Ethik in der neueren Philosophie* are specially recommended as guides to the lectures, but students will be expected also to read portions at least of the original treatises referred to in the course. Selby-Bigge's *British Moralists* will be found specially useful in the study of the modern period.

Honours Course in Ethics.

[1] *Lecturer.*

This Class (a half-course qualifying for Honours in Philosophy) will meet at twelve on Mondays, Wednesdays, and Fridays, beginning 4th May. The course is intended mainly for students who propose to take Honours Classes during the following winter. The subject will be announced later.

[1] Vacant at date of issue.

COMMERCIAL AND POLITICAL ECONOMY AND MERCANTILE LAW.

PROFESSOR NICHOLSON.

The course, embracing two half-courses of 50 lectures each, qualifies for Graduation in Arts. The Lectures will follow the arrangement of John Stuart Mill's *Principles of Political Economy.*

1. METHODS USED IN ECONOMIC SCIENCE.—Analysis of Fundamental Conceptions, Wealth, Capital, &c.

2. PRODUCTION OF WEALTH.—Division of Labour—Accumulation of Capital—Growth of Population.

3. DISTRIBUTION OF WEALTH.—Socialism—Land Tenure—Wages—Profits—Rent—Trade Unions.

4. VALUE.—Money—Inflations and Depressions of Trade—Commercial Crises—Banking—Free Trade—Foreign Exchanges—Stock Exchange.

5. ECONOMIC PROGRESS.—Effects of Progress on Value, and on the relative Distribution of Wealth.

6. PRINCIPLES OF THE LIMITS OF GOVERNMENT INTERFERENCE WITH INDUSTRY.—Direct and Indirect Taxation—Incidence of Taxes—National Debts—Contracts—Joint Stock Companies—Patents—Copyrights.

Although Mill will be used as text-book, references will be constantly given to previous writers, *e.g.* Adam Smith and Ricardo, as well as to more recent writers, *e.g.* Sidgwick, Walker, Jevons, Marshall, Bagehot, &c.

History.—One lecture a week on the Economic History of England. This course is not intended to give the history of the Theory of Political Economy, but to trace the principal facts and institutions in the material and social life of the people from an economic standpoint, *e.g.* Gilds, Feudal System, Land Tenures, Ecclesiastical Influence, Serfdom and the Poor, Forms and Amount of Wealth, Foreign and Internal Trade, &c.

THEORY, ART, AND HISTORY OF EDUCATION.

PROFESSOR S. S. LAURIE.

I. Theory, or Science, of Education.

A.—The End and Materials of Education.

The Possibilities and Limits of Education. The End of Education. The relation of the School to this End. The Educative Process generally, whereby the End is attained.

Materials or Subjects of Instruction conducive to the attainment of the End, and the carrying out of the Process. Definition of subjects of instruction in their school sense. Relative value of subjects for instruction and discipline respectively. Distinction of Real and Formal, Humanistic and Naturalistic subjects.

Material conditions of the life and growth of Mind, i.e., *Physiology and its Educational Lessons.*

B.—Science of Education, *i.e.*

Applied Psychology and Ethics.—1. The Psychology of Intelligence in its educational relations fully treated. Periods of Mental Growth. Methodology or the Principles and Rules of the Art of Instruction which the Science yields.

2. Psychology of the Ethical Nature of Man in its educational relations. The Real of Morality (Instruction and Training); the Formal in Morality (Discipline to Duty).

II. Art of Education or Application of Principles and Rules.

A.—*Intellectual.—Rules of the Art*, i.e. *Method in Intellectual Instruction, Training, and Discipline.*—Analytic exposition of the Rules, showing their derivation from the Science of education. Application of the Rules to teaching of—

(1.) Real-Naturalistic subjects, *e.g.* Object-lessons, Elementary Science, Geography, &c.

(2.) Real-Humanistic subjects, *e.g.* Language, Literature, Economics, History, &c.

(3.) Formal subjects, *e.g.* Arithmetic, Geometry, Grammar, Foreign Languages.

B.—*Ethical.—Rules of the Art*, i.e. *Method in Moral Training and Discipline.*—Motives. The Authority of the Teacher. The meaning of Authority. The nature and conditions of its exercise. Punishments, Rewards, and school discipline generally.

Organisation of a School. Organisation of a State-system. Ideas governing Primary, Secondary, and University Instruction respectively. The Manual and the Technical in Instruction. School appliances. Manipulation of a Class. The Teacher.

D.—History of Education and of Theories.[1]

Pre-Christian Education — 1. Education in Ancient Egypt. 2. Education among the Semitic Races. 3. Education of the Hindu Races. 4. The Education of the Ancient Persians. 5. Education among the Hellenic Races. The educational views of Plato and Aristotle. 6. Education among the Romans. 7. Detailed analysis and exposition of the Institutions of Quintilian. 8. Plutarch.

Christian Education—1. The decay of the Romano-Hellenic, and the rise of Christian, Education. 2. The Cathedral and Monastery Schools. 3. The Rise of Universities.

The Renaissance—1. Humanism as represented by Rabelais and Montaigne, Erasmus, Colet, Luther, Melancthon, John Sturm, Roger Ascham. Exposition of "The Scholemaster."

The Modern Movement — 1. Lord Bacon. 2. Ratichius. 3. Comenius. 4. Milton. 5. Analysis and exposition of John Locke's "Thoughts on Education," and the "Conduct of the Human Understanding." 6. Rousseau, Basedow, and Campe. 7. Pestalozzi, Jacotot, Fröbel, Jean Paul Richter, Diesterweg,

[1] In 1898-99 the Lectures will be confined to the period from 1350 to 1700 A.D. Modern Movement.

Dr Arnold. 8. Dr Andrew Bell and Joseph Lancaster. 9. Herbert Spencer and contemporary Realism.

Note.—The books to be thoroughly studied during the Session, apart from the Lectures, are *Comenius' Didactic*, and the Professor's book on "Language and Linguistic Method," *second edition.* The "Institutes of Education" must also be in the hands of the student. *Four written Examinations will be held during the Session, and Three Essays on educational principles or method called for.*

PRACTICE IN TEACHING.—Arrangements are made at the Training Colleges for securing training in the *Practice of Teaching* to the extent of the requirements of the University Schoolmaster's Diploma now recognised by the Education Department. Fee for this, £1, 1s. Facilities are also given for visiting one or two of the principal schools, and acquiring a knowledge of their organization.

PHILOSOPHY OF LAW.

PROFESSOR SIR LUDOVIC GRANT, BART. .

This course of forty lectures, commencing on Tuesday, 18th October 1898, at 2, will qualify as a half-course for graduation.

Scope of the Science defined. The State, its Functions and Legal Institutions, Marriage, Family, Property, Succession, Contract, Punishment, &c., examined. The Province of Jurisprudence determined. Examination of the Sources of Positive Law. Classification of Rights.

Books of reference.—Ritchie, Natural Rights; Green, Principles of Political Obligation; Lorimer, Institutes of Law; Ahrens, Cour de Droit Naturel; Lerminier, Philosophie de Droit; Bluntschli, The Theory of the State; The Student's Austin; Holland, Jurisprudence; Sir Henry Maine's Works; Pollock, First Book of Jurisprudence.

GIFFORD LECTURES ON NATURAL THEOLOGY.

Lecturer—PROFESSOR C. P. TIELE, OF LEYDEN.

These Lectures were endowed by the late Adam Gifford, Senator of the College of Justice, "for promoting, advancing, teaching, and diffusing the study of Natural Theology in the widest sense of that term." . . . "The lecturers appointed shall be subjected to no test of any kind, and shall not be required to take any oath, or to emit or subscribe any declaration of belief, or to make any promise of any kind; they may be of any denomination whatever, or of no denomination at all; they may be of any religion or way of thinking, or, as is sometimes said, they may be of no religion; or they may be so-called sceptics or agnostics or free-thinkers;—provided only that the 'patrons' will use diligence to secure that they be able reverent men, true thinkers, sincere lovers of and earnest inquirers after truth. I wish the lecturers to treat their subjects as a strictly natural science, the greatest of all possible sciences, indeed, in one sense, the only science,—that of Infinite Being, without reference to or reliance upon any supposed special exceptional or so-called miraculous revelation. The lecturers shall be under no restraint whatever in their treatment of their theme. The lectures shall be public and popular, that is, open not only to students of the Universities, but to the whole community, without matriculation."

The arrangements for 1898-99 *will be announced before the opening of the Session.*

III.—DEPARTMENT OF SCIENCE.

MATHEMATICS.

PROFESSOR CHRYSTAL.

Junior Class—Taught by the Assistant, under supervision of the Professor. 12 to 1.

Plane Geometry equivalent to Euclid, Books i., ii., iii., iv., and vi. (*Syllabus of Plane Geometry*, prepared by the Association

for the Improvement of Geometrical Teaching forms the text of the lectures); Solid Geometry, equivalent to Euclid, Book xi.; Modern Geometry; and Elementary Algebra.

Senior Class—9 to 10.

This is the qualifying class for the Ordinary Degree of M.A. and for the First Science Examination.[1]

Algebra, including the elements of the Theory of Equations, and of Determinants, the Theory of Limits and the Elements of Curve Tracing; Plane Trigonometry; Conic Sections, treated geometrically and analytically; Modern Geometry.

Intermediate Honours Class—Monday, Wednesday, Friday, 11 to 12.

This course will suit Engineers and other Science Students who do not wish to make a specialty of Pure Mathematics.

Elementary parts of the Differential and Integral Calculus, and of the Calculus of Finite Differences. Analytical Geometry, Plane, and Elementary Solid. It is assumed that the Student has a knowledge of the Theory of Equations, and of the elements of the Theory of Determinants before he joins this Class.

Advanced Honours Class—Monday, Wednesday, Friday, 10 to 11.

The subjects of this are the higher parts of the Differential and Integral Calculus; Differential Equations; Definite Integrals with special reference to Fourier's Theorem; Functions of Laplace and Bessel; Higher Plane Curves; Analytical Geometry of Three Dimensions.

Additional lectures on Quaternions, Projective Geometry, and other special subjects are given occasionally.

Tutorial Classes.—Occasional lectures are also given by the Class Assistant. The time is devoted to the repetition of parts of the class lectures and to the working of examples.

[1] See footnote 2, page 57.

Home Exercises are prescribed weekly in all the classes.

Written Examinations are held during the Session. The class honours are determined solely by these examinations.

Text-Books.—As a rule *special* text-books are not prescribed; but the student is recommended to select from the following:—

Geometry.—Wilson's Elementary Geometry, or the Text-Books of the Society for the Improvement of Geometrical Teaching, and one or more of the following, for the sake of the exercises they contain:—Mackay's, Todhunter's, Nixons', or Casey's edition of Euclid's Elements, and Casey's Sequel to Euclid.[1]

Algebra.—Chrystal, or Todhunter, Gross, Chambers's Mathematical Tables.

Solid Geometry and Conic Sections.—Taylor (smaller work) or Taylor[1] (larger work).

Trigonometry.—Todhunter, Walmsley, or Lock (M'Lelland and Preston[1] for Spherical Trigonometry).

Analytical Geometry.—Smith's Analytical Conic Sections; and Dyer's Exercises in Analytical Geometry. Students intending to take the Third Class are recommended to get Salmon's Conic Sections, Salmon's Higher Plane Curves,[1] and Salmon's Geometry of Three Dimensions,[1] or, instead of the last, Smith's Solid Geometry.

Projective Geometry.—Cremona's Elements of Projective Geometry translated by Leudesdorf, or Henrici's Article on *Geometry*, "Encyclopædia Britannica" (9th edition).

Higher Algebra and Theory of Equations, etc.—Burnside and Panton's, or Todhunter's Theory of Equations; Thomson's Introduction to Determinants, and Muir[1] or Scott[1]; and Salmon's Higher Algebra for those who mean to read for Mathematical Honours.

Differential and Integral Calculus.—Williamson's Treatises, Forsyth's Differential Equations,[1] Frost's Curve Tracing, Boole's Finite Differences.[1]

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[1] Recommended to those only who make Mathematics a specialty.

Summer Session, 1899.

CHARLES TWEEDIE, M.A., B.Sc., *Lecturer.*

1. *Senior Mathematics* (*First Graduation Half-Course*)—11 to 12.

This Class qualifies for Graduation in Arts and Science as a First Half-Course[1][2] in Mathematics. The work consists of Algebra and Plane Trigonometry, corresponding to the First Half of the Winter Graduation Course.

2. *Senior Mathematics* (*Second Graduation Half-Course*)—12 to 1.

This Class qualifies for Graduation as a Second Half-Course[1][2] if taken *after any* First Half-Course in Mathematics. Suitable also for Students reading for the more advanced part of the Winter Graduation Course. The work consists of Algebra and the elementary treatment of the Conic Sections, Geometrical and Analytical.

In each Class weekly exercises are prescribed, and two written examinations are held.

3. *Honours Mathematics* (*Graduation Half-Course*)—10 to 11.

This Class qualifies as a First Half-Course for Graduation in Arts and Science, with Honours in Mathematics and Natural Philosophy, and will also, so far as is expedient, be adapted for Engineering Students.

The course will aim at a working acquaintance with the more elementary parts of Determinants and the Theory of Equations (not treated in the Winter Advanced Courses), Differential and Integral Calculus, Finite Differences, and Analytical Geometry.

Tutorial Classes.

The above Classes also serve for Tutorial Classes.

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[1] The first half of the Winter Graduation Course up to Christmas qualifies as a First Half-Course in Mathematics, and the second half of the Winter Course from Christmas to the end of the Session as a Second Half-Course. *Any* First Half-Course, along with *any* Second Half-Course, taken subsequently, qualifies as a full Course of Instruction for Graduation.

[2] See footnote 2, page 57.

Weekly exercises are prescribed on the work of each class.
For text-books, see page 86.

NATURAL PHILOSOPHY.

PROFESSOR TAIT AND DR KNOTT.

Ordinary Class.—(Qualifying for M.A. and First Science Examination.)[1]

The subjects embraced in this Course are :—

1. Properties of Matter—including Inertia, Gravitation, Molecular Forces, &c.
2. Abstract Dynamics—including Kinematics, Statics and Kinetics of Solid, Liquid, and Gaseous Bodies, with their applications.
3. Sound, and Wave-propagation in general.
4. Heat (including Thermo-Dynamics).
5. Light (Geometrical and Physical Optics, and Radiation generally).
6. Electricity.
7. Conservation of Energy.
8. Astronomy (Descriptive and Physical).
9. Meteorology.

Properties of Matter, Abstract Dynamics, and Conservation of Energy, together with two or three others of the above divisions of the subject, are treated in detail every Session, the remainder being discussed in a more superficial manner, as it is impossible to enter at length into all in a single Session.

It is intended that in 1898-99, besides Sections 1, 2, and 7, Sections 5 and 6 shall form the more detailed part of the Course.

The Class is examined at intervals upon the subjects treated in the Lectures ; and a prize is given for the best answering. In these examinations, which form an essential part of the class-work, no Mathematics are requisite, except the most elementary portions of Arithmetic, Algebra, and Geometry.

In January and March there are special Examinations on prescribed subjects, applying mainly to students competing for

[1] See footnote 2, page 57.

Class Prizes; and, on these two occasions only, the Class is divided into two parts—the division depending mainly upon the students' proficiency in Mathematics. In the Lower Division, the elements of Algebra and Geometry alone are required; in the Higher Division, Algebra, Geometry, and the Geometry of the Conic Sections are necessary. The Prizes in each Division are determined by adding the marks obtained in the two sets of Examinations above described. No student who has obtained a Prize in either Division can compete, in a subsequent Session, for a Prize in the same or in a lower Division.

The Text-Book for the Dynamical part of the Course will be Thomson and Tait's "Elements of Natural Philosophy" (Pitt Press, Cambridge). Of this, however, only the more elementary portions will be required for the Lower Division. For the remainder of the subject the student may consult some of the following books: — Clerk-Maxwell's "Matter and Motion," Jenkin's "Electricity," Balfour Stewart's "Lessons in Physics," Knott's "Physics," Tait's "Properties of Matter," "Heat," and "Light."

The special Examinations in January 1899 will be on :—

Higher Division.—Newton's "Three Sections" (Goodwin's "Course of Mathematics," Frost's "Newton," or any good edition of the *Principia*).

Lower Division.—Herschel's "Astronomy," the smaller work, in a recent edition, omitting the chapter on Perturbations. A series of explanatory lectures will be given by the Class-Assistant before this Examination.

The subjects for the March Examinations in both Divisions will be Kinematics and Dynamics. The range will depend upon the progress which the Class has made in these subjects.

Intermediate Honours Class—Monday, Wednesday, Friday, 9 to 10.

This Course, given by the Lecturer on Applied Mathematics, will include the more elementary parts of Dynamics of Particles,

Rigid Solids, and Flexible Strings ; the Theory of the Potential ; and Conduction of Heat.

For syllabus of Advanced Science (Dynamics) Class, see Courses in Science.

Advanced Honours Class—Monday, Wednesday, Friday, 12 to 1.

This Course (given by the Professor), the subjects begun in the Intermediate Course will be further developed : and Thermodynamics, with one or more special branches of Applied Mathematics [such as the Kinetic Theory of Gases, the Lunar Theory, the Undulatory Theory, Vortex Motion, &c.] will be fully treated. It is most important to observe that no one can possibly profit by attendance at this class, unless he has fully mastered the subjects treated in the Intermediate Class.

One of the text-books in each of these Honours Courses is Tait's *Dynamics*, a reprint of "*Mechanics*," in the last edition of the "Encyc. Brit."

SUMMER CLASS OF PHYSICS, SPECIALLY FOR MEDICAL STUDENTS.

For particulars, see Courses in Faculty of Medicine.

PHYSICAL LABORATORY.

This has been established with the view of affording students a practical knowledge of the construction and use of physical apparatus, and the mode of conducting experimental inquiries. The Laboratory is open five or six hours daily in the Winter and Summer Sessions, under superintendence of the Professor and his Class-Assistant. Fee, £6, 6s. for the Winter Session. It is hoped that, with the aid of the valuable collection in the Museum, results of real use to science may be obtained.

A practical class, for instruction in the elementary processes of measuring Time, Mass, Length, Angle, Force, &c., will be formed in Winter and also in Summer. Each Course will extend to about three months. Fee, £2, 2s.

ELEMENTARY DYNAMICS.

C. G. KNOTT, D.Sc., *Lecturer.*

This Half-Course, to be given in the Summer Session 1898, is primarily intended to prepare students for the Intermediate Honours Class in Natural Philosophy and the Advanced Science Class in Dynamics (Engineering). To facilitate the work of these Winter Classes, all Honours and Science Candidates are strongly recommended to take this Course, in which only Mathematics of the standard of the Higher Preliminary will be used. The Course will include Kinematics and Kinetics of a Particle, Impact, Simple cases of Kinetics of a Solid, Equilibrium, Statics, Hydrostatics.

Although the work will reach a somewhat higher standard than is necessary for the Dynamical part of the M.A. Pass and 1st B.Sc. Examination in Natural Philosophy, the Class will be serviceable to Students preparing for this Examination. The Course will also be useful to men preparing for the Civil Service Examinations.

Text-Books recommended.—MacGregor's *Dynamics;* Pinkerton's *Hydrostatics and Pneumatics;* Minchin's *Statics* (Vol. I.).

Summer Session, 1899.

ADVANCED EXPERIMENTAL PHYSICS.

W. PEDDIE, D.Sc., *Lecturer.*

In this Class certain subjects, which may be treated mathematically in the Winter Advanced Honours Course of Natural Philosophy, will be treated fully from the experimental point of view. The Course is also intended for undergraduates in Experimental Science. It is proposed to treat experimentally the advanced parts of Light, Electricity, Magnetism, &c. In connection with the Undulatory Theory, the following subjects will be discussed :—Reflection, refraction, and interference of ordinary and of polarised light ; conical refraction ; diffraction ; electro- and magneto-optics ; and the optical phenomena of

crystalline substances. In Electricity and Magnetism such subjects as the discharge of electricity through gases; the screening effect of conducting sheets, and other phenomena associated with rapidly alternating electromotive forces; electromagnetic undulations; magnetic hysteresis, &c., will be treated. The experimental investigation of reciprocally related physical phenomena will be specially illustrated from various branches of physics; and, on the dynamical side, special attention will be devoted to the realisation of dynamical systems illustrative of physical phenomena.

Tutorial Class.

NATURAL PHILOSOPHY (*Advanced Honours*).

The work will correspond as closely as possible to that of the Winter Advanced Honours Course. The Class is intended for Students preparing for the above Winter Course, or for the Advanced Honours Examination.

ASTRONOMY.

PROFESSOR COPELAND.

(*Eighty Lectures, and, on different days, Twenty Meetings of two hours each for Observatory work.*)

Lectures on Practical Astronomy will be delivered on Mondays, Tuesdays, Wednesdays, and Thursdays. Instruction in the use of portable and fixed astronomical instruments will be given at the Royal Observatory on Blackford Hill, on Fridays, beginning at 8 P.M. Attendance at the evening demonstrations is obligatory on all who take Astronomy as a qualifying course for graduation. The Lectures will be divided into two divisions, the first of which will embrace the theory and use of Astronomical Instruments, together with as much General Astronomy as is requisite to guide the student in making observations in the field as well as in an observatory. The Second Division will treat of the utilization of observations of Comets, etc., in the computation of orbits and ephemerides.

CHEMISTRY.

PROFESSOR CRUM BROWN.

This Course, the same as for Students of Medicine and Science, embraces One Hundred Lectures and Fifty Meetings for Practical Work in the Practical Chemistry Class-Room.

ZOOLOGY.

PROFESSOR EWART.

This Course, the same as for Students of Medicine and Science, embraces Fifty Lectures and Fifty hours for Practical Work.

BOTANY.

PROFESSOR BAYLEY BALFOUR.

This Course, the same as for Students of Medicine and Science, embraces Fifty Lectures and Fifty hours for Practical Work.

GEOLOGY, INCLUDING MINERALOGY.

PROFESSOR GEIKIE.

This Course, the same as for Students of Science, embraces Seventy Lectures, Twenty Hours for Practical Work, and Ten Field Demonstrations.

IV.—DEPARTMENT OF HISTORY AND LAW.

HISTORY.

PROFESSOR PROTHERO.

The Course qualifies for Graduation in Arts. The subject, until further notice, is GENERAL BRITISH HISTORY, divided into the following Periods and Subjects, of which a fuller syllabus will be issued by the Professor after the commencement of the Session :—

Part I.—1. Celtic and Roman Britain (to A.D. 449).—2. The English and Scottish Conquests (449-613). — 3. The Early Church.—4. The English and Scottish Kingdoms (613-855).—5. The Danish Conquests (855-1042).—6. The Norman Conquest (1042-1071).—7. The making of Scotland (685-1057).—8. The Norman Monarchy (1071-1154).—9. The Angevin Monarchy (1154-1199).—10. Celt and Teuton in Scotland (1057-

1214).—11. Norse and English Conquests in Wales and Ireland (613-1215).—12. The Charters (1199-1217).—13. The growth of Parliament (1217-1272).—14. England, Wales, and Scotland (1215-1328).—15. The Great War with France, part i (1327-1377).—16. The Lancastrian Revolution (1377-1413).—17. Independent Scotland (1328-1424).—18. The Great War with France, part ii (1413-1453).—19. The Yorkist Revolution (1450-1485).—20. King and Nobles in Scotland (1424-1488); Ireland (1215-1485).

Part II.—21. The Tudor Monarchy (1485-1603).—22. The Reformation in England and Scotland (1529-1603).—23. England, Scotland, and Europe (1485-1603).—24. Crown and Parliament (1603-1640).—25. The Long Parliament and the Protectorate (1640-1660).—26. Restoration and Revolution (1660-1689).—27. Colonies and Commerce (1600-1689).—28. Whigs and Tories: William III and Marlborough (1689-1714).—29. Scotland and Ireland: the Union (1689-1714).—30. The Whig Supremacy (1714-1760).—31. India and America (1714-1763).—32. George III and the Parliament (1760-1783).—33. The American War (1763-1783).—34. Pitt and the French Revolution (1783-1815).—35. Ireland: the Union (1715-1800).—36. India (1763-1815).—37. Reaction and Reform (1815-1832).—38. The Reformed Parliament (1832-1866).—39. Foreign Policy, Colonies and India (1815-1858).—40. The growth of Democracy (1866-1885).

N.B.—During the Session 1898-99 the Lectures will deal mainly with Part II of the above Syllabus, Part I being treated only in outline.

WORK OF THE CLASS.—1. Lecture daily, except Saturdays, at twelve. One hour a week, if possible, will be devoted to the discussion of special points, notes on original authorities, &c.

2. Three or four Class Examinations will be held, and two or more Essays set, during the Session. Honours will be awarded to candidates distinguished both in the examinations and in the essays.

3. The History Reading-Room (adjoining Professor Kirkpatrick's Class-Room) may be consulted by members of the

History Classes on Mondays and Fridays from 11 to 1, and on Wednesdays from 12 to 2.

Books recommended.—For elementary purposes, S. R. Gardiner's "Student's History of England," J. R. Green's "Short History of the English People," J. F. Bright's "History of England," or Ransome's "Advanced History of England," with Macarthur's "History of Scotland," and Morris' "History of Ireland" (Cambridge Series). For wider study, see the lists given in the "Introduction to English History" by Gardiner and Mullinger, Part II.

Honours Classes.

PROFESSOR PROTHERO.

The subject for the Session 1898-1899 is

ENGLAND, SCOTLAND, AND FRANCE, 1415-1485.

I. European Society and Politics at the opening of the Fifteenth Century. II. The War with France, 1415-1453. III. Government in England, Scotland, and France, 1415-1450. IV. The Wars of the Roses, 1450-1461. V. Edward IV, Louis XI, and Charles the Rash, 1461-1483. VI. England and Scotland, 1461-1485. VII. The Early Renaissance.

A fuller syllabus will be issued by the Professor at the commencement of the session.

Books recommended.—Lodge, "Modern Europe" (Murray's Student Series); Lavallée, "Histoire des Français," Vol. ii; Willert, "Reign of Louis XI"; Michelet, "Louis XI et Charles le Téméraire"; Ramsay, "Lancaster and York"; Denton, "England in the Fifteenth Century"; Hill Burton, "History of Scotland," Vol. ii. *Original authorities* (to be studied by candidates for Honours in History): "Mémoires de Commines"; "Paston Letters" (ed. Gairdner); Fortescue, "Governance of England" (ed. Plummer).

This Course of Fifty Lectures qualifies for graduation in Arts with Honours in History. The Lectures will be given on Mondays, Wednesdays, and Fridays at 10.

Two class examinations will be held, and several essays set, during the session. Students in this class may attend Mr

Heatley's advanced course on "The English Kingship" (Wednesdays at 11), without fee, and may use the History Reading-Room.

The Honours Subject for the session 1899-1900 will be "Great Britain and Europe, 1815-1878."

Books recommended for preliminary study—Lodge's "Modern Europe"; Fyffe, "Modern Europe," Vols. ii, iii; Andrews, "Political Development of Europe."

State and Church in England: A Political Survey: 1384-1563. (*Subject for Sessions* 1898-99 *and* 1899-1900).

Honours Course—Fifty Lectures.

PROFESSOR KIRKPATRICK.

I. Introductory—Precursors of Wycliffe—Wycliffe's place in political History—Lollardy. II. Survival of Wycliffite doctrines—Constitutionalism in the Church—The Bohemian Revival—Hus, Jerome, Payne. III. Political condition of England after Wycliffe's death—The Empire and the Papacy—The Reformation—Its causes, its political and other aspects, especially in England. IV. Original sources.

Books recommended.—Lorimer's translation of Dr Lechler's Wycliffe; "Chronicon Angliæ," ed. by E. M. Thomson, 1874; Works of Langland and Chaucer; Walsingham's "Historia Anglicana," ed. by Riley (Rolls Series); Loserth's "Wycliffe and Huss"; James Baker's "A Forgotten Great Englishman (Relig. Tract Soc.); Wycliffe's "Trialogus," "De Officio Regis," and "De Civili Dominio"; Creighton's "Papacy during the Reformation (vols. i and ii); Pecock's "Repressor" (Rolls Series); Roger's "Gascoigne"; Fortescue's "Governance of England," and "de Laudibus Legum"; Stubbs's "Lectures on Mediæval and Modern History"; Seebohm's "Oxford Reformers"; Brewer's "Henry VIII.," ed. by J. Gairdner.

These Lectures, qualifying as a full course for graduation in Arts with Honours in History, or with Honours in English, or as a half-course for graduation in Law, will be given on Mondays, Tuesdays, and Thursdays, at 4 P.M., beginning on Tues-

day, 18th October 1898 (after Christmas, Tuesdays and Thursdays only). Students attending them may use the History Reading Room, superintended by Mr Heatley, the Assistant in History, on Mondays and Fridays from 11 to 1, and on Wednesdays from 12 to 2. They may also attend Mr Heatley's advanced course on "The English Kingship," on Wednesdays, at 11, without additional fee.

CLASSICAL ARCHÆOLOGY AND HISTORY OF ANCIENT ART.

PROFESSOR BALDWIN BROWN.

This Course qualifies as an alternative subject for Honours in History. For details see page 68.

FINE ART.

PROFESSOR BALDWIN BROWN.

This Course of one hundred Lectures, qualifying for the M.A. degree, is designed—

1. To bring before students, by critical descriptions and illustrations, the chief ancient and modern works of Architecture, Sculpture, Painting, and the Decorative or Industrial Arts.

2. To show how these works are connected in origin and use with the national and social life of successive epochs; and, conversely, how Artistic Monuments illustrate Classical and Biblical literature, and bear on historical investigation in general.

3. To explain as far as practicable the technicalities of the various Arts, and to open up those aspects of Art which present themselves naturally to the artist, but are sometimes overlooked by the literary student.

On the historical side—

The characteristics of different styles and schools of Art will be broadly indicated, but this part of the subject, which can be studied from books, will not be dwelt upon at length.

On the artistic side—

Particular stress is laid on the explanation of different materials and technical processes, as upon these largely depend

the particular forms in which beauty is realised in the various works of human hands.

Arrangements for the work of the Class :—There are Lectures daily at 3 P.M. Three Class examinations are held, and a series of eight Essays are set for the Cousin Prize (£15). The Essays, to the number of at least five, are included in the work required from those taking the Course for Graduation.

The Class Library, Reading Room, and collections of examples are open to members of the Class.

Museums, &c., are visited from time to time on Saturdays.

The Professor's manual, "The Fine Arts," is used, so far as it goes, as a text-book. Other books to be read by those taking the Course for Graduation are indicated on page 68.

CONSTITUTIONAL LAW AND HISTORY.

PROFESSOR KIRKPATRICK.

This Course is divided into two half-courses, the first treating mainly of the Constitutional History of England, the second treating of that of the United States of America, that of France, Germany, Switzerland, etc. (see under Faculty of Law).

ECCLESIASTICAL HISTORY.

PROFESSOR TAYLOR.

(See under Faculty of Divinity.)

ROMAN LAW.

PROFESSOR MACKINTOSH.

The full Course qualifying for Graduation in Arts extends to about ninety meetings of the Class. It is divided into two distinct parts.

I. HISTORY.—This Course, extending up to the Christmas vacation, includes a sketch of the Constitutional and Legal History of Early Rome; a survey of the primitive law in its various branches; and a discussion of the Sources of the law, the rise and progress of Jurisprudence, Codification,

and other topics belonging to the external history and the general part of the civil law. It is intended to serve as a historical introduction to the study of the special departments. The historical lectures qualify as a Half-Course for Graduation in Arts.

II. INSTITUTES.—The second half of the Course will be devoted to a systematic exposition, in detail, of the law relating to persons and the family, and to property and real rights. In general the order of Justinian's Institutes is followed.

The Lectures on Succession and Contracts are given in the Summer Session. See under Faculty of Law.

Fee for the Half-Course, £2, 2s.; for the full Arts Course, £4, 4s.

Text-Books.—The Institutes of Gaius and of Justinian.

In connection with the historical lectures, students are referred to Muirhead's "Historical Introduction to the Private Law of Rome," Ortolan's "Histoire de la Législation Romaine" (or the English translation), and Maine's "Ancient Law."

PUBLIC INTERNATIONAL LAW.

PROFESSOR SIR LUDOVIC GRANT, BART.

This Course of Forty Lectures commences on 4th January 1899, at 2. The Course will include—

1. An historical retrospect.

2. Some account of the science and literature of Public International Law.

3. An examination of the sources, and a critical exposition of the leading doctrines, of Public International Law.

Students are recommended to consult Wheaton's History of the Law of Nations, Introduction; Nys's Les Origines du Droit International; Phillimore's International Law; Lawrence's Essays on Modern International Law; Hall's International Law; Westlake's International Law; Pitt Cobbett's Select Cases; Lawrence's Principles of International Law; Walker's International Law. *Vide* under Faculty of Law.

ADVICE TO STUDENTS REGARDING CURRICULA IN ARTS.

1. Every intending Arts Student is advised to make himself familiar with the Regulations for Graduation in Arts before commencing his course. In particular, he should make sure, in the first place, that he has complied with all the Conditions of the Preliminary Examination. He should then choose a Curriculum to suit his requirements; see that it satisfies the regulations; that he has all the qualifications necessary for entering certain Classes; and that his studies are spread over the required number of Sessions. In any case of doubt he should consult the Dean of the Faculty.

2. While Students are fully at liberty to arrange their Curricula as they deem best for their particular requirements, the Faculty of Arts strongly recommend Candidates for the *Ordinary Degree* to devote their First Session to Languages and Mathematics, and to Junior Classes when such are necessary.

The Third Session should be devoted to those subjects which presuppose a previous training in others, such as English Literature, Political Economy, Education, the advanced subjects in History, and the Law subjects.

3. Candidates for Honours Degrees are advised so to arrange their classes that they may be able to devote the whole of the year immediately preceding the Honours Examination to the special work of their Honours Group.

4. Honours Students and Students studying for special examinations, should, as early in their Course as possible, consult the Professors of the Special Subjects which they are to study. Professor Hardie is Convener of a Committee specially charged with the Supervision of those studying for the Indian and Home Civil Service Examinations.

The attention of the students referred to under this head is directed to the Summer Classes, which afford them obvious facilities for arranging their studies so as to economise time, *e.g.*, they may take Summer half-Courses in some of the subjects in which they have to pass on the standard of the Ordinary Degree.

5. For special and detailed advice as to each subject, students should consult the several Professors or Lecturers *before entering upon their Curricula.* In particular, those who intend proceeding afterwards to Degrees in Divinity, Law, Medicine, Science, or Music, should in cases of doubt, consult the Deans of these Faculties as to the most appropriate Arts Curriculum.

Graduation in Arts.[1]

Candidates who commenced attendance on qualifying Classes before 1st October 1892 are referred to the CALENDAR *for 1895-96, or previous* CALENDARS.

The Degree admits to professional Study, to the Army, &c. It also qualifies for Masterships of Public Schools, subject to an examination in the methods of instruction, and three months' attendance in a Public School for the practice of teaching. Those who take the Schoolmaster's Diploma are now exempted from this Examination if Graduates of this University.

ACADEMICAL YEAR.

I. The Academic year commences on the first day of October. The winter session opens about the middle of October, and includes not less than twenty teaching weeks. The summer session opens about the beginning of May, and includes not less than ten teaching weeks.

II. The Curriculum for the degree of Master of Arts (M.A.) extends over not less than three winter sessions, or two winter sessions and three summer sessions.

PRELIMINARY EXAMINATION.[2]

III. (1) Before entering on the Curriculum (subject to the *proviso* contained in Section IV., Sub-section 1) each student must pass a Preliminary Examination in the following subjects :—

1. English.
2. Latin or Greek.
3. Mathematics.
4. One of the following :—Latin or Greek (if not already taken), French, German, Italian, or such other language as the Senatus Academicus may approve,[3] Dynamics.

(2) The examination must be passed in the matters and on the standards hereinafter defined ; but there is a higher and a lower standard in Latin, Greek, and Mathematics.

Candidates must pass on the higher standard in at least one of these three subjects, and may pass on the lower standard in either or both of the remaining two ; subject always to the conditions relative to attendance contained in Section IV. hereof.

(3) English includes Grammar and Composition, and the outlines of Geography and British History, and the standard must not be lower than that presently adopted for the Higher Grade Leaving Certificate of the Scotch Education Department.

(4) Latin and Greek comprise grammatical questions, translation

[1] The annual amount of Matriculation, Class Fees, &c., of the regular course in Arts may be estimated at about £10, 10s., see Advice to Students regarding Curricula, page 101.

[2] See also additional Regulations of the Joint Board of Examiners, pages 427-432 inclusively.

[3] Any Candidate who proposes to be examined in a language other than those above named, is required to apply to the Senatus for approval before 1st February or 1st July for the Spring and Autumn Examinations respectively.

into English from Latin or Greek authors not previously prescribed, and translation of plain passages or easy sentences from English into Latin or Greek. The higher standard must not be lower than that formerly adopted in the examination for a Curriculum of three sessions, or for the Higher Grade Leaving Certificate of the Scotch Education Department, and the lower standard must not be lower than that presently adopted for the Lower Grade Leaving Certificate of the said Department.

(5) French, German, and Italian comprise grammatical, literary, and easy philological questions, translation into English from French, German, or Italian authors not previously prescribed, and translation from English into French, German, or Italian; and the standard must not be lower than that presently adopted for the Higher Grade Leaving Certificate of the Scotch Education Department.

(6) Mathematics on the lower standard comprises—(1) Arithmetic, including Vulgar and Decimal Fractions, Proportion, Percentage, Square Root, Simple Interest; (2) Algebra, including Fractions, Factors, Square Root, Equations of the First Degree, Simultaneous Equations of the First Degree, Easy Quadratic Equations, Problems leading to the above Equations; (3) Geometry—Euclid, Books I., II., and III. (or their equivalents), with easy deductions. Demonstrations other than Euclid's will be accepted if they assume no propositions which in Euclid's order are subsequent to the proposition under consideration.

(7) Mathematics on the higher standard, in addition, comprises Euclid, Books IV., VI., and the first twenty-one propositions of Book XI. (or their equivalents), with deductions, Quadratic Equations, Trigonometry to the solution of Triangles inclusive, and the use of Logarithmic Tables.

(8) Dynamics means the Elementary Statics and Kinetics of Solids, Liquids, and Gases.

(9) A candidate must pass in all the required subjects at one or not more than two examinations, but may offer himself for re-examination as often as may be necessary to satisfy this condition.

IV. (1) Attendance on any class does not qualify for graduation, unless the whole Preliminary Examination has been passed. But any Student who has passed in Latin, Greek, or Mathematics on the higher standard may attend a qualifying class in such subject or subjects without having passed in the other subjects of the examination, provided always that (*a*) no candidate will be allowed to present himself for examination in any subject qualifying for graduation until he has passed the whole Preliminary Examination, and (*b*) no Student will be admitted to a degree in Arts unless he has attended qualifying classes in the University granting the degree, or in another Scottish University, as provided by Section XXV. hereof, for three Academic years after he has completed his Preliminary Examination.

(2) Attendance on a class in any language included in the Prelimin-

ary Examination does not qualify for graduation, unless the candidate, before entering the class, has passed the Preliminary Examination in that subject, and on the higher standard where a double standard is provided. He may, for that purpose, attend any Preliminary Examination held during the course of his study, taking only the paper set in that subject; provided always that the provisions of the subsection immediately preceding have been satisfied.

(3) Attendance on a class in any language not included in the Preliminary Examination will not qualify for graduation, unless the candidate has previously passed an examination in that language on a standard as nearly as possible equivalent to the higher standard of the languages included in the Preliminary Examination.

(4) Attendance on a class of Mathematics or Natural Philosophy will not qualify for graduation unless the candidate, before entering the class—in addition to the examination in Mathematics on the Lower Standard required of all students—has passed an examination in the following subjects:—

(*a*) Euclid: Book VI., Propositions 1-19, or Geometry equivalent thereto.
(*b*) Algebra: Quadratic Equations, Ratio and Proportion.
(*c*) The Trigonometry of Right-angled Triangles.

(5) A student, who, having passed the Arts Preliminary Examination in accordance with these Regulations, has thereafter obtained a certificate of attendance on a qualifying class of Mathematics, will not be required to pass any further examination in Mathematics as a condition of entering on the course of study for graduation in Science.

V. (1) The Preliminary Examination is held at each University twice in each year, and is conducted in writing.

(2) The Joint Board of Examiners has power to accept the Higher Grade Leaving Certificate of the Scotch Education Department in any subject as an equivalent for the Preliminary Examination in that subject; and to accept the Lower Grade Leaving Certificate of the said Department as an equivalent for the Preliminary Examination on the lower standard in Latin, Greek, and Mathematics; provided they are satisfied that the standard of the examination, at which the said certificates were granted, is not lower than that required by these Regulations.

(3) The Joint Board has power to determine what examinations, if any, other than those for the Leaving Certificates of the Scotch Education Department may be accepted as equivalent to the Preliminary Examination in whole or in part, provided they are satisfied that such other Examinations are in fact equivalent thereto.

ORDINARY DEGREE.

VI. Candidates for the ordinary degree of Master of Arts may follow the Curriculum and take their degree in the subjects recognised for

graduation under the Universities (Scotland) Act, 1858, subject always to the preceding provisions of these Regulations; or they may vary the Curriculum for graduation under the regulations contained in the immediately succeeding sections.

VII. (1) Candidates must attend full courses in at least seven subjects, and are examined on these subjects.

(2) Of these subjects four must be (*a*) Latin or Greek (not modern Greek); (*b*) English or a Modern Language (French, German, Italian, or Spanish), or History; (*c*) Logic and Metaphysics, or Moral Philosophy; (*d*) Mathematics or Natural Philosophy.

(3) The remaining subjects may be selected by the candidate from the Departments specified in Section IX. of these Regulations, under the following condition:—That the whole subjects taken must include either (*a*) both Latin and Greek (not modern Greek), or (*b*) both Logic and Moral Philosophy, or (*c*) any two of the following three subjects,—Mathematics, Natural Philosophy, and Chemistry.

VIII. (1) Each of the subjects must be studied in a full course of not less than one hundred meetings of the class on separate days, except in cases where the Senatus, with the approval of the University Court, have sanctioned, as qualifying for graduation, half courses of not less than fifty meetings on separate days; or where the Senatus, with the approval of the said Court, may, having regard to the nature of the subject, sanction full courses of less than one hundred or half courses of less than fifty meetings respectively.

(2) Two half-courses are held to be equivalent to a full course in such cases as the Senatus, with the approval of the University Court, may determine, and under such regulations as may from time to time be made for that purpose.

(3) Where a subject is taught in a practical class, as well as in a systematic class, the Senatus, with the approval of the University Court, regulates the course of study and determines the relative proportion of lectures and laboratory or practical work.

IX. The Departments of Study for graduation in Arts in each University, if adequate instruction is provided, include the following subjects, with such additions or modifications in any University as may hereafter be made by Ordinance of the University Court:[1]—

1. *Language and Literature.*

Latin.	Italian.
Greek.	Spanish.
Modern Greek.	Sanskrit.
English.	Hebrew.
French.	Arabic or Syriac.
German.	Celtic.

[1] See advice to Students regarding Curricula, p. 101.

2. *Mental Philosophy.*

Logic and Metaphysics.	Education (Theory, History, and Art of).
Moral Philosophy.	Philosophy of Law.
Political Economy.	

3. *Science.*

Mathematics.	Zoology.
Natural Philosophy.	Botany.
Astronomy.	Geology.
Chemistry.	

4. *History and Law.*

History.	Constitutional Law and History.
Archæology and Art (History of).	Roman Law.
	Public Law.

X. Candidates who produce certificates that they have satisfied all the conditions prescribed by these Regulations, and who have passed the necessary examinations, are entitled to receive the ordinary degree of M.A. on payment of the fees required.

DEGREE WITH HONOURS.[1] [2]

XI. (1) The degree of M.A. may be taken with Honours in any of the following Groups, in which Honours Classes have been established in at least two subjects :—

(*a*) Classics (*i.e.* Latin and Greek, with optional subjects such as Comparative Philology, Ancient Philosophy, and Classical Archæology).
(*b*) Mental Philosophy.
(*c*) Mathematics and Natural Philosophy.
(*d*) Semitic Languages.
(*e*) Indian Languages.
(*f*) English (Language, Literature, and British History). English Literature is the chief subject of this group, the linguistic and historical subjects being regarded as subsidiary.
(*g*) Modern Languages and Literature.
(*h*) History.
(*i*) Economic Science (*i.e.*, Political Economy, with either (*a*) Moral Philosophy or (*b*) History as Supplementary Honours subjects).

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[1] *Civil Service Commission Examinations.*—Candidates for Graduation in Arts with Honours are reminded that most of their subjects are admissible also in the Public Examinations held by the Civil Service Commission and other Public Examinations, on the results of which many important posts in India and at home are awarded each year. A Committee of the Senatus has been formed for the purpose of directing the studies of Students who have these examinations in view. Those who desire advice or information on this subject should apply to Professor Hardie, Convener of the above-mentioned Committee.

[2] See advice to Students, p. 101.

(2) Every candidate must take up at least five subjects. Two of these subjects, under separate Professors or Lecturers, must be selected from the candidate's Honours Group; and the five subjects must include one from each of the Departments of Language and Literature, Mental Philosophy, and Science, set forth in Section IX. of these Regulations.

(3) Every candidate must attend seven Classes, taking two Classes (one of which must be an Honours Class) in each of his Honours subjects.

(4) A candidate who has obtained Honours in any one Group may, before graduating, present himself again for examination in a second Honours Group. In such a case, he will not be required to attend more than two additional Classes, which must be Honours Classes, in the second Group.

Nothwithstanding the foregoing provisions of this sub-section and of Section XIV. sub-section (1) hereof, a candidate who has already graduated may present himself for examination in any Honours Group within five years from the date of his first matriculation after having passed the Preliminary Examination. If he be successful in obtaining Honours, he shall receive a special certificate stating the Honours Group in which he has presented himself, and the class he has obtained in the Group.

(5) The examination in the subjects comprised in the candidate's Honours Group must be of a higher standard than that required for the ordinary degree of M.A. In his other subjects the standard will be that required for the ordinary degree.

(6) The Senatus, subject to the provisions of Sections XVI. to XX. of these Regulations, from time to time determines what subjects are comprised in each Group, what subjects may be taken in half-courses, and in which Group they may be taken: Provided that no new Group shall be instituted except by Ordinance of the University Court.

(7) The provisions of Section VIII. of these Regulations applies to Candidates for Honours; but, in their case, not fewer than fifty meetings, on separate days, extending over an entire winter session, will constitute a full course for an Honours Class; and not fewer than twenty-five meetings on separate days, extending over half a winter session, or an entire summer session, will constitute a half course.

XII. (1) Every candidate must include Latin, or Greek, either in his Honours Group or as one of the subjects in which the standard of examination is that required for the ordinary degree of M.A.

(2) Greek is compulsory for candidates for Honours in Mental Philosophy.

(3) Candidates for Honours in English, or Modern Languages and Literature, or History, or Economic Science (Groups *f*, *g*, *h*, *i* of Section XI. hereof) must include within the whole subjects taken for their degree (*a*) Logic and Metaphysics or Moral Philosophy, and (*b*) Mathematics or Natural Philosophy.

(4) Every candidate must obtain a certificate of attendance on the class of Latin or Greek, under sub-sections (1) or (2) of this section,

before he offers himself for examination in his Honours group of subjects.

(5) Candidates for Honours in Economic Science (Group *i* of Section XI. hereof), who take Moral Philosophy as their supplementary Honours subject, may take a half course in the History of Civil Law and a half course in the Philosophy of Law, which, together, shall be deemed to constitute one of the subjects in which the standard of examination is that required for the ordinary degree of Master of Arts.

Candidates for Honours in Mental Philosophy who have included Latin, but not Greek, as one of the subjects in which the standard of examination is the same as that required for the ordinary degree of Master of Arts, will be deemed to have satisfied the provisions of subsection (2) of this section, if, before they offer themselves for the Honours Examination in Mental Philosophy, they have passed a special examination in translating into English passages from the works of Greek philosophical authors, including passages from the works of such authors not previously prescribed.

XIII. (1) The whole examination in the candidate's Honours Group must be taken at one time, and the whole examination necessary for graduation with Honours must be taken within five years from the date of the candidate's first matriculation after having passed the Preliminary Examination, unless that period shall be extended by the Senatus on special cause shown; and in every such case the Senatus must make a report to the University Court setting forth the reasons for the extension.

(2) Candidates for Honours may be examined, at any time during their Curriculum, in the three subjects in which the standard of examination is that required for the ordinary degree of M.A.

XIV. (1) A candidate who has passed the examinations necessary for the ordinary degree of M.A., but who has not yet graduated, may present himself for Honours within five years from the date of his first matriculation after having passed the Preliminary Examination, and will not be required to attend further classes:—subject always to the provisions of Section XII. hereof.

(2) No one is allowed to present himself a second time as a candidate for the degree of M.A. with Honours, who, upon examination, has failed to obtain Honours.

(3) A candidate is held to have presented himself who has notified his name for examination in accordance with the University regulations. But it will be in the power of the Senatus to relax this rule on special cause shown; and in every such case the Senatus must make a report to the University Court setting forth the reasons for the relaxation.

XV. (1) In each Group there are three Grades of Honours, to be denominated respectively the First, Second, and Third Class. The names of the candidates entitled to Honours in each class are arranged in alphabetical order.

(2) For the degree of M.A. with Honours a Diploma is given setting forth the subjects in which he has taken Honours.

BOARDS OF STUDIES.

XVI. The Senatus of each University from time to time institutes Boards of Studies corresponding as nearly as may be to the Departments of Study enumerated in Section IX. of these Regulations.

XVII. Each Board of Studies consists of such Members of the Senatus and Lecturers in the University as the Senatus may from time to time select, and the Senatus appoints one of the Members of the Board to be Convener thereof.

XVIII. Before the end of each winter session each Professor and Lecturer in the said Departments of study must submit to the proper Board of Studies for its approval a syllabus of the subjects and books proposed for the work of his class for the next Academical year; and also a syllabus of the subjects and books to be prescribed for the Examinations for the Ordinary Degree of M.A. in the next Academical year, and for the Honours Examinations in the Academical year next but one. As soon as such approval has been given, these syllabuses must be transmitted to the Faculty of Arts for its consideration. The syllabuses, with such observations as the Faculty of Arts may see fit to make thereon, must then be transmitted to the Senatus for its sanction.

XIX. (1) Before the end of each winter session each Board of Studies must prepare a scheme, defining, for the Academical year next but one following, the classes which are deemed to be Honours Classes, and the subjects and courses of reading for Honours in its Department, and must report the same to the Faculty of Arts for its consideration. The scheme, with such observations as the Faculty of Arts may see fit to make thereon, is then transmitted to the Senatus for its sanction.

(2) Each Board must in like manner make recommendations through the Faculty of Arts to the Senatus in regard to the half-courses which may be sanctioned under these Regulations, and the lectures which may be given on special subjects.

XX. The Principal and the Dean of the Faculty of Arts are *ex-officio* Members of each Board of Studies. The Convener presides, and, in his absence, each meeting appoints its own Chairman, and every Chairman has a deliberative, and, in cases of equality, a casting vote.

GENERAL.

XXI. In the case of a foreign student, whose native language is other than English, the standard required in English in the Preliminary Examination is such as the Joint Board of Examiners deems sufficient. In the case of a student, whose native language is other than European, the Senatus may accept as an alternative to Latin or Greek any other classical language, such as Sanskrit or Arabic, subject always to the provisions of Section IV., Sub-section 3 hereof.

XXII. If a student, before passing the Preliminary Examination, has attended a class qualifying for graduation, the Senatus may, on special

cause shown, permit him to count such class as qualifying for graduation, on condition of his passing the full Preliminary Examination within such time thereafter as the Senatus may appoint; and in every such case the Senatus must make a report to the University Court setting forth the reasons for the relaxation.

XXIII. The examination in all the languages in the Curriculum must, as far as possible, be on the same standard in examinations for the same degree, and will in all cases test the candidate's knowledge of the history and literature of the several countries.

XXIV. A candidate for the degree of M.A. is not deemed to have attended a class as part of the Curriculum for that degree who does not present a certificate bearing not only that he has given regular attendance, but also that he has duly performed the work of the class.

XXV. A student, who has given attendance at classes recognised as qualifying for graduation during one or more sessions in any one or more of the Scottish Universities, may complete his Curriculum by giving attendance during the remainder of his course in another Scottish University, and may proceed to a degree in the latter University in the same way, in all respects as if the previous part of his Curriculum had been taken therein: Provided always that every such student must produce, to the satisfaction of the Senatus of the latter University, certificates of his having passed the Preliminary Examination, and of his attendance at the former University or Universities, and must be examined in all the subjects necessary for the degree of M.A. by the Examiners of the University in which he completes his Curriculum, and in which alone he will be allowed to graduate; and that no such student will be admitted to a degree in any University unless he has given attendance in such University during the last winter session of his Curriculum, and one other winter session or two summer sessions.

XXVI. A candidate for the degree of M.A. with Honours, who has failed to be placed in any class, may, provided that in the opinion of the Examiners he has given evidence of sufficient attainments in any subject for the ordinary degree of M.A., receive from them a certificate of having passed in such subject, which will count *pro tanto* as part of the examination required under the regulations for the ordinary degree of M.A.

XXVII. The degree of M.A. is in no case conferred on persons who have not satisfied the conditions hereinbefore set forth, and is not conferred *honoris causa tantum.*

XXVIII. A student who, at the time these Regulations came into operation, had commenced his course of study with a view to graduation in Arts in any of the Scottish Universities under the regulations in force at the time in such University, may complete his course and become a candidate for the degree of M.A., with or without Honours, in conformity with such regulations. And any such student who has passed the examination hitherto required for admission to a Curriculum of three sessions, if he desire to come under

these regulations, is exempted from the Preliminary Examination herein required.

XXIX. Students may attend any classes without having passed the Preliminary Examination within the meaning of these Regulations, but such attendance will not qualify for graduation.

XXX. Attendance on classes in the Faculty of Arts in which the teaching is on the standard at present recognised for the classes hitherto known as junior or middle classes, will in no case qualify for graduation. It is competent for the University Court in each University to discontinue the Junior Classes, or Middle Classes, where such exist, in Latin, Greek, and Mathematics, when, in the opinion of the Court, the provision for Secondary Education in schools throughout the country is sufficient to render such classes no longer necessary.

XXXI. Ordinances numbered 12, 14, 18, and 69 of the Commissioners under the Universities (Scotland) Act, 1858, as altered under the provisions of the said Act, are repealed, in so far as they are inconsistent with these Regulations.

Graduation of Women.

I. It is in the power of the University Court to admit women to graduation.

II. The conditions for graduation are the same for women as for men, subject to the following modifications, which have effect until provision is made for the instruction of women in all subjects qualifying for graduation in which provision is made for the instruction of men :—

(1) Section XXV. of Regulations for Degrees in Arts is not applicable to the graduation of women in Arts.

(2) So long as within the Faculty provision is not made for the instruction of women in any subject qualifying for graduation in which provision is made for the instruction of men, it is in the power of the University Court to admit to graduation women who have received the requisite instruction in that subject in any Scottish University, or from any teacher or in any Institution, within the University town, recognised for the purposes of graduation by the University Court : Provided always that every candidate for graduation produces evidence of having satisfied the conditions with respect to the Preliminary Examination, and be examined in all the subjects necessary for graduation by the Examiners of the University.

III. So soon as within the University provision is made for the instruction of women in all subjects qualifying for graduation in which provision is made for the instruction of men, the conditions for the graduation of women shall be the same as the conditions for the graduation of men.

IV. (1) Women who may attend classes in the University must matriculate, paying a fee of the same amount as that exigible for other students. (2) Women, who are candidates for graduation but not matriculated students, and who may attend classes within a University town, under the provisions of Section II. (2) hereof, must, at the commencement of each year of such attendance, enrol their names in a book to be kept in the University for that purpose, paying a Fee of the same amount as the Matriculation Fee paid by students of the University.

ADDITIONAL REGULATIONS BY THE UNIVERSITY COURT.[1]

Any Woman who has received the requisite instruction in Chemistry, Botany, and Zoology in any Scottish University, or in the Edinburgh School of Medicine for Women, Surgeon Square, Edinburgh, or in the Medical College for Women, Chambers Street, Edinburgh, will (subject to the provisions of Ordinance No. 18, General No. 9, Regulations for the Graduation of Women,[2] &c.) be admitted to Examination in these subjects for Graduation in Arts. Women may attend within the University the advanced Courses in Botany and Zoology, and the Advanced Lecture Courses in the Chemistry Department.

Any Woman, not a Matriculated Student of the University, availing herself of the permission to attend the Courses on Chemistry, Botany, or Zoology, at the above-named Schools of Medicine in Edinburgh, with a view to Graduation in Arts, must, at the commencement of each year of such attendance, enrol her name in a book to be kept in the University for that purpose, paying a Fee of the same amount as the Matriculation Fee paid by Students of the University, and having, in respect of such payment, a right to the use of the Library of the University.

REGULATIONS FOR SPECIAL STUDY AND RESEARCH, FOR APPOINTMENT OF RESEARCH FELLOWS, &C.

I. It is in the power of the Senatus Academicus, with the approval of the University Court, to make regulations under which graduates of Scottish Universities, or of other Universities recognised by the University Court for the purposes hereof, or other persons who have given satisfactory proof of general education and of fitness to engage in some

[1] Extra Academical Teachers in Edinburgh, whose Lectures qualify Women Students for Graduation in Arts in this University:—
T. W. Drinkwater, Ph.D., Chemistry and Practical Chemistry, 17th December 1894.
J. Arthur Thomson, M.A., Zoology, 17th December 1894.
Robert Turnbull, B.Sc., Botany, 17th June 1895.

[2] See Ordinance Appendix to CALENDAR, 1892-93, page 51.

special study or research, may be admitted to prosecute such study or research in the University.

II. It is the duty of the Senatus Academicus—

(1) To receive and decide upon all applications for admission to prosecute special study or research.

(2) To prepare a list of all persons so admitted (hereinafter referred to as Research Students).

(3) To make regulations for the supervision of their work.

(4) To satisfy themselves from time to time that the Research Students are carrying on their work in the University in a satisfactory manner.

(5) To suspend or exclude from any course any student whose conduct or progress is unsatisfactory.

III. Every applicant for admission must send in to the Senatus Academicus a written application stating any degree or other distinction which he has already obtained, the line of study or research which he wishes to prosecute and the probable period of its duration, together with evidence as to his character, capacity, and general qualifications.

IV. An application for admission is in the first instance referred by the Senatus to the appropriate Faculty, or to a Committee appointed by the Senatus; one member of the Committee shall always be a Professor or Lecturer within whose department the proposed line of study or research falls. No applicant shall be recommended by the Faculty or the Committee who has not satisfied them by examination or otherwise that he is qualified to prosecute the proposed line of study or research, and further—

(*a*) That his proposed line of study or research is a fit and proper one;

(*b*) That he possesses a good general education;

(*c*) That he is of good character;

(*d*) That he proposes to prosecute his studies or research during a period to be approved by the Senatus.

The Faculty or the Committee shall make a report to the Senatus upon each application. It is also their duty, subject to the regulations of the Senatus, to provide for the supervision of the Research Student's work, and to report at least once a year to the Senatus as to his progress and conduct. The Senatus shall then determine whether he shall remain a Research Student.

V. Every Research Student is required to matriculate each year, paying the ordinary fee.

VI. Research Students have access to and the use of the University Laboratories and Museums, under such conditions as to payment and otherwise as the University Court, after consultation with the Senatus, may determine.

VII. The title of Research Fellow may be conferred by the Senatus, with the approval of the University Court, on Research Students who have shown special distinction. Such title shall not of itself confer any

right to stipend, but it shall be in the power of the University Court to provide a stipend of such amount and for such period as it may think fit to any Research Fellow under the powers of Section XI., Sub-section 8, of Ordinance 27.

VIII. (1) The Research Fellows shall be appointed as aforesaid after consideration of the report or reports submitted in terms of Section IV. hereof.

(2) The title of Research Fellow may be conferred either at the commencement of the Research Student's course of study or research, or at any time during its progress, as the Senatus may determine.

(3) Research Fellows shall retain their title and stipend, if any, for the period during which they are engaged in special study or research in the University, and no longer.

(4) Research Students who have been appointed Research Fellows shall continue to be subject to the conditions above prescribed as to the supervision of their work and the reports to be made thereon.

IX. Nothing herein contained shall prejudice the right of Research Students to such Fellowships, Scholarships, or Prizes as may be open to them by Ordinance or Deed of Foundation.

X. The University Court may, subject to the provisions of Section XI., Sub-section 8, of Ordinance 27, provide such sums as it may think fit in aid of the expenses of Special Study or Research.

Regulations for Higher Degrees in Arts and Science.

Degree of D.Sc.

I. Graduates who have taken the degree of Master of Arts in any Scottish University with first or second class honours in Mathematics and Natural Philosophy under the conditions prescribed by the Regulations for Degrees in Arts, or under the Regulations previously in force in such University, may offer themselves for the degree of Doctor of Science (D.Sc.) in the same University after the expiry of five years from the date of their graduation in Arts, under the same conditions as if they held the degree of Bachelor of Science.

II. Research Students within the meaning of the Regulations for the Encouragement of Special Study and Research, and for the appointment of Research Fellows may offer themselves for the degree of D.Sc. of the University in which they have prosecuted some special study or research under those Regulations, although they have not taken the degree of B.Sc. or the degree of M.A. with honours as aforesaid in that University; provided—

(1) That they hold the degree of B.Sc. or M.B. of a Scottish or any recognised University, or a degree of any such University, which the Senatus shall hold to be equivalent to the degree of B.Sc. or to the degree of M.A. with first or second class honours in Mathematics and Natural Philosophy; provided that candidates who hold any such de-

gree from a University outside the United Kingdom may be required, if the Senatus think fit, before beginning their course as Research Students with a view to the degree of D.Sc., to pass an examination equivalent to an Honours or to a Final Science examination in a group of subjects cognate to their line of work as Research Students.

(2) That they have spent not less than two winter sessions or an equivalent period as Research Students in the University granting the degree, and that they produce evidence of satisfactory progress in the special study or research undertaken by them during that period.

(3) That a period of not less than five years shall have elapsed from the date of the graduation required in sub-section (1) of this section.

III. All candidates for the degree of D.Sc. shall present a thesis or a published memoir or work,[1] to be approved by the Senatus on the recommendation of the Faculty of Science; provided that, if required by the Senatus, the candidate shall also be bound to pass such an examination conducted orally or practically, or by written papers, or by all of these methods, on the subjects of his special study or of his thesis, as may from time to time be determined. The thesis shall be a record of original research undertaken by the candidate, and shall be accompanied by a declaration signed by him that the work has been done and the thesis composed by himself.

Degree of D.Phil.

IV. Graduates who have taken the degree of M.A. in any Scottish University with first or second class honours in Mental Philosophy, under the conditions prescribed by Ordinance No. 11 [General No. 6—Regulations for Degrees in Arts], or under the Regulations previously in force in such University, may offer themselves for the degree of Doctor of Philosophy (D.Phil.) in the same University after the expiry of five years from the date of such graduation.

V. Research Students as aforesaid may offer themselves for the degree of D.Phil. of the University in which they have prosecuted some special study under Ordinance No. 61 [General, No. 23—Regulations for the Encouragement of Special Study and Research, and for the appointment of Research Fellows], although they have not taken the degree of M.A. with honours as aforesaid in that University; provided—

(1) That they hold the degree of M.A. with first or second class honours in Mental Philosophy of any Scottish University, or a degree of any recognised University, which the Senatus shall hold to be equivalent to such degree with honours as aforesaid; provided that candidates who hold such a degree from a University outside the United Kingdom may be required, if the Senatus think fit, before beginning their course as Research Students, with a view to the degree of D.Phil., to pass an examination equivalent to an honours examination in a group of subjects cognate to their line of work as Research Students.

[1] The Thesis must be lodged and the fees paid before 1st December.

(2) That they have spent no less than two winter sessions or an equivalent period as Research Students in the University granting the degree, and produce evidence of satisfactory progress in the special study undertaken by them during that period.

(3) That a period of not less than five years shall have elapsed from the date of the graduation required in sub-section (1) of this section.

VI. All candidates for the degree of D.Phil. shall present a thesis or a published memoir or work,[1] which shall be an original contribution to learning, to be approved by the Senatus on the recommendation of a Committee appointed by the Senatus; provided that, if required by the Senatus, a candidate shall also be bound to pass such examination, conducted orally or otherwise, on the subject of his thesis or of his special study as may from time to time be determined. The thesis, or memoir, or work shall be accompanied by a declaration signed by the candidate that it has been composed by himself. If the thesis has not already been published, it shall be published by the candidate in such manner as the Senatus shall approve.

Degree of D.Litt.

VII. Graduates who have taken the degree of M.A. in any Scottish University with first or second class honours in any group other than Mathematics and Natural Philosophy or Mental Philosophy, under the conditions prescribed by Ordinance No. 11 [General No. 6—Regulations for Degrees in Arts], or under the Regulations previously in force in such University, may offer themselves for the degree of Doctor of Letters (D.Litt.) in the same University after the expiry of five years from the date of such graduation.

VIII. Research Students as aforesaid may offer themselves for the degree of D.Litt. of the University in which they have prosecuted some special study under Ordinance No. 61 [General No. 23—Regulations for the Encouragement of Special Study and Research, and for the appointment of Research Fellows], although they have not taken the degree of M.A. with honours as aforesaid in that University; provided—

(1) That they hold the degree of M.A. with first or second class honours in any group except Mathematics and Natural Philosophy or Mental Philosophy of any Scottish University, or a degree of any recognised University, which the Senatus shall hold to be equivalent to such degree with honours as aforesaid; provided that candidates who hold such a degree from a University outside the United Kingdom may be required, if the Senatus think fit, before beginning their course as Research Students with a view to the degree of D.Litt., to pass an examination equivalent to an honours examination in a group of subjects cognate to their line of work as Research Students.

(2) That they have spent not less than two winter sessions or an equivalent period as Research Students in the University granting the

[1] See footnote 1, p. 115.

degree, and produce evidence of satisfactory progress in the special study undertaken by them during that period.

(3) That a period of not less than five years shall have elapsed from the date of the graduation required in sub-section (1) of this section.

IX. All candidates for the degree of D.Litt. shall present a thesis or a published memoir or work,[1] which shall be an original contribution to learning, to be approved by the Senatus on the recommendation of a Committee appointed by the Senatus; provided that, if required by the Senatus, a candidate shall also be bound to pass such examination, conducted orally or otherwise, on the subject of his thesis or of his special study as may from time to time be determined. The thesis, or memoir, or work shall be accompanied by a declaration signed by the candidate that it has been composed by himself. If the thesis has not already been published, it shall be published by the candidate in such manner as the Senatus shall approve.

General.

X. Notwithstanding and in supplement of the Regulations as to Examinations, sections XIV. and XV., the Senatus Academicus in each University shall appoint such Professors or Lecturers as it may think suitable to conduct the examination of candidates who may offer themselves under the Regulations for Degrees in Science, or of these Regulations for the Degree of Doctor of Science, Doctor of Philosophy, or Doctor of Letters; and the University Court shall, after consultation with the Senatus Academicus, appoint an additional Examiner to act along with them. Such additional Examiner shall be a person of recognised eminence in the subject of the thesis, or memoir, or work which is to be submitted for approval. The result of the examination shall be reported to the appropriate Faculty or Committee of Senatus.

XI. The degrees of D.Sc. in Mental Science or D.Sc. in Philology shall no longer be conferred by any Scottish University.

XII. Candidates who have already completed the necessary attendance on classes required for the degree of D.Sc. in Mental Science or D.Sc. in Philology, under regulations hitherto in force in any Scottish University, may proceed to the degree of D.Phil., or of D.Litt., as the case may be, under this Ordinance:—provided such candidates comply with the provisions of Section VI. or Section IX. hereof, as the case may be, and that a period of not less than five years shall have elapsed from the date of their graduation as M.A.

XIII. The degrees of D.Sc., D.Phil., and D.Litt. shall in no case be conferred on persons who have not satisfied the conditions hereinbefore set forth, and shall not be conferred *honoris causa tantum*.

The fee to be paid for Examination for each of the degrees of D.Sc.,

[1] See footnote 1, p. 115.

D.Phil., and D.Litt. is ten guineas, payable when the thesis is lodged,[1] and the fee for each re-examination for each of the Degrees is £5, 5s.[1]

Candidates for Examination or Graduation must pay the Matriculation fee for the Academic year.

Time-Tables of Examinations and Dates for Presenting Certificates and for Payment of Fees.

Candidates are required to enter for each periodical Examination at which they desire to appear, and to state the subject or subjects in which they desire to be examined.

The dates of the Examinations for 1898-99 have been fixed as follows, and Candidates are required to assemble in the Examination Hall at the University a quarter of an hour before the time fixed for examination.

Preliminary Examination.

The Preliminary Examinations are held in the Examination Hall in the University, in autumn and spring.

Each Candidate must pay a fee of 10s. 6d. for each appearance at the Preliminary Examination.

Candidates may obtain Schedules at the Matriculation Office, University (Old) Buildings, on and after 6th September 1898, and on and after 15th February 1899. The Schedules must be completed and lodged, along with the fees, not later than 16th September 1898 and 1st March 1899 for the autumn and spring Examinations respectively.

Candidates may pay the fees personally or transmit them to T. Gilbert, University, Edinburgh, by *Post Office* or *Postal Orders*, or by *Bank Drafts*, crossed Union Bank of Scotland (Hunter Square Branch), Edinburgh, but not by cheques on private accounts. When names are not entered and fees paid, or a Pass to the Examination obtained where the fee has been previously paid, on or before the stated dates, an additional or late-entry fee of 10s. must be paid before the Candidate can be admitted to the Examination. This fee will not be received after Twelve o'clock of the last day but one preceding the Examination for which the Candidate desires to appear, without the express permission of the Dean of his Faculty and the subsequent sanction of the Senatus. A Candidate must enter his name and pay the fee, or, when the fee has been previously paid, obtain a Pass, for each periodical Examination at which he desires to appear. A Candidate is not held to be entered until his Schedule is lodged, the Fee paid, and a Pass to the Examination obtained.

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[1] See footnote 1, page 115.

TIME-TABLES FOR PRELIMINARY EXAMINATIONS FOR ARTS, SCIENCE AND MEDICINE, AND FOR BURSARY EXAMINATIONS, 1898-99.

		Medical Preliminary Examinations.	Arts, Science, Law (B.L.), and Music Preliminary Examinations and Bursary Examinations.
1898.			
Sept. 30	Fri.	... ...	Additional English for Bursaries,[1] 9-12 Italian,[1 4] 2-5
Oct. 1	Sat.	English, 9-12 Greek, 3-6 Do.,[2] 3-5	English,[1 3 4] 9-11, 12-2 Lower Greek,[3 4] 3-6 Anglo-Saxon, for Patterson Bursary, 9-12, 2-5
,, 3	Mon.	Latin, 9-12 Mathematics, 2-5	Lower Latin,[3 4] 9-12 Lower Mathematics,[3 4] 2-5
,, 4	Tu.	French, 3-6 Do.,[2] 3-5	Higher Latin,[1] 9-11, 12-2 Latin for Second and Third Year Bursaries, 9-12 French, 1st paper,[1 4] 3-4.30
,, 5	Wed.	German, 3-6 Do.,[2] 3-5	Higher Greek,[1] 9-11, 12-2 Greek for Second and Third Year Bursaries, 2.30-5.30 German, 1st paper,[1 4] 3-4.30
,, 6	Thur.	Higher Mathematics,[2] 9-11, 12-2	Intermediate and Higher Mathematics, and Mathematics for First, Second, and Third Year Bursaries,[1] 9-11, 12-2 French, 2nd paper,[1 4] 3-5
,, 7	Fri.	Moral Philosophy,[2] 9-11 Mechanics,[2] 1-4	German, 2nd paper,[1 4] 9-11 Dynamics,[1] 1-4 Logic and Psychology for Third Year Bursaries, 1-4

[1] Papers for the University Ordinary First Year Bursary Examination, for the Heriot University Bursaries both for men and for women, for the Heriot St George's Training College Bursaries for Graduates, and for the Bursaries offered by the Edinburgh Association for the University Education of Women.

[2] For Students under the Old Regulations.

[3] Papers for the Preferential Bursary Examination.

[4] Papers for Music Preliminary: for Italian for Music Preliminary half-an-hour more will be allowed.

The Papers for the Heriot University Bursaries for Women Students of Medicine, and for the St George's Training College Bursaries for non-Graduates, are the Preliminary Examination Papers pure and simple: candidates for these Bursaries as such are not required to take any of the additional Bursary Papers.

		Medical Preliminary Examinations.	Arts, Science, Law (B.L.), and Music Preliminary Examinations and Bursary Examinations.
1898.			
Oct. 8	Sat.	Natural Philosophy,[2] 9-11 Logic,[2] 2-4	Elementary Physics,[4] 9-11 Logic,[4] 2-4 Additional Latin and Greek for Ordinary Bursaries,[1] 9-12 Classics for Second and Third Year Bursaries, 9-12 Additional Mathematics for Ordinary Bursaries, and for Second and Third Year Bursaries,[1] 2-5
,, 10	Mon.	... ...	Higher Geometry for John Welsh Bursaries and for Kelland Prize, 9-12 Gaelic for Mackinnon Bursary, 9-12 Chemistry (Baxter of Balgavies Bursary), 9-11 Additional French for Ordinary Bursaries,[1] 2-3.30 Do. German do.,[1] 3.30-5
,, 14	Fri.	MEETING OF JOINT BOARD } At 10 A.M.	
,, 15	Sat.	MEETING OF JOINT BOARD } each day.	
,, 18	Tu.	CLASSES OPEN.	
1899.			
Mar. 31	Fri.	... ...	Italian,[4] 2-5
Apr. 1	Sat.	English, 9-12 Greek, 3-6 Do.,[2] 3-5	English,[4] 9-11, 12-2 Lower Greek,[4] 3-6
,, 3	Mon.	Latin, 9-12 Mathematics, 2-5	Lower Latin,[4] 9-12 Lower Mathematics,[4] 2-5
,, 4	Tu.	French, 3-6 Do.,[2] 3-5	Higher Latin, 9-11, 12-2 French, 1st paper,[4] 3-4.30

[1] Papers for the University Ordinary First Year Bursary Examination, for the Heriot University Bursaries both for men and for women, for the Heriot St George's Training College Bursaries for Graduates, and for the Bursaries offered by the Edinburgh Association for the University Education of Women.

[2] For Students under the Old Regulations.

[4] Papers for Music Preliminary.

The Papers for the Heriot University Bursaries for Women Students of Medicine, and for the St George's Training College Bursaries for non-Graduates, are the Preliminary Examination Papers pure and simple: candidates for these Bursaries as such are not required to take any of the additional Bursary Papers.

		Medical Preliminary Examinations.	Arts, Science, Law (B.L.), and Music Preliminary Examinations and Bursary Examinations.
1899.			
Apr. 5	Wed.	German, 3-6 Do.,[1] 3-5	Higher Greek, 9-11, 12-2 German, 1st paper,[2] 3-4.30
,, 6	Thur.	Higher Mathematics,[1] 9-11, 12-2	Intermediate and Higher Mathematics, 9-11, 12-2 French, 2nd paper,[2] 3-5
,, 7	Fri.	Moral Philosophy,[1] 9-11 Mechanics,[1] 1-4	German, 2nd paper,[2] 9-11 Dynamics, 1-4
,, 8	Sat.	Natural Philosophy,[1] 9-11 Logic,[1] 2-4	Elementary Physics,[2] 9-11 Logic,[2] 2-4
,, 14	Fri.	MEETING OF JOINT BOARD } At 10 A.M.	
,, 15	Sat.	MEETING OF JOINT BOARD } each day.	

FEES FOR DEGREE OF M.A.

Candidates for the Ordinary Degree pay for each of the subjects of Astronomy, Chemistry, Zoology, Botany, or Geology £1, 1s., and for each of the other subjects 15s.

Candidates for the Degree, with Honours, pay the same total fees as for the Ordinary Degree.

Those who fail in the Examinations pay 10s. 6d. for re-examination in each subject.

DEGREE EXAMINATIONS.[3]

Candidates are required to enter for each periodical Examination at which they desire to appear, and to state the subject or subjects in which they desire to be examined.

Candidates may obtain Schedules at the Matriculation Office. Schedules must be lodged, Certificates shown, and Fees paid as follows :—

[1] For Students under the Old Regulations.

[2] Music Preliminary: for Italian for Music Preliminary half-an-hour more will be allowed.

[3] When names are not entered and fees paid, or a Pass to the Examination obtained where the fee has been previously paid, on or before the stated dates, an additional or late-entry fee of ten shillings must be paid before the Candidate can be admitted to examination. This fee will not be received after twelve o'clock of the last day but one preceding the Examination for which the Candidate desires to appear, without the express permission of the Dean of his Faculty and the subsequent sanction of the Senatus. A Candidate must enter his Name and pay the Fee, or, when the Fee has been previously paid, obtain a Pass, for each periodical Examination at which he desires to appear.

1. For the Examinations in October 1898, *not later than 4th October.*[1]

2. For the Examinations in Spring of 1899 Schedules must be lodged[1] and Fees paid *not later than 3rd March*, and the Matriculation Tickets and Class Certificates must be shown as follows :—For the Examinations in March at least *two clear days before* the date of the Examination in each subject ; for the Examinations in April, *not later than 31st March.*

3. For the Examinations in Chemistry, Zoology, Botany, and Geology in Summer 1899, Schedules must be lodged and Fees paid *not later than 7th July*, and Certificates shown on *Friday*, *14th July.*

When the Candidate has exhibited his Matriculation Tickets and the Certificates for Examination, the Clerk will stamp on the Receipt for the Fee the words, "Certificates examined," which entitle the Candidate to admission to the Examination Hall.

Candidates for Examination or for Graduation must be Matriculated Students of the Academic year.

Every Candidate for Graduation must produce certificates of having passed the necessary Examinations and pay the Fee of £1 for Registration as a Member of the General Council *at least one clear day before the date of Graduation.*[2]

The fees for Matriculation, Examinations for Degrees, and Registration of Graduates as Members of the General Council, are payable at the Matriculation Office, University. Candidates may pay the fees personally, or transmit them to T. GILBERT, University, Edinburgh, by *Post Office* or *Postal Orders*, or by *Bank Drafts*, crossed "*Union Bank of Scotland (Hunter Square Branch), Edinburgh*," but not by cheques on private accounts.

Degrees are conferred by the Chancellor or the Vice-Chancellor of the University. They are not conferred *in absentia*, except on very special cause shown. Candidates must appear in Academic costume, with the appropriate hood.[3] [4]

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[1] Candidates for Special Examination in Greek for Honours in Mental Philosophy must send in their names, and state which dialogue of Plato they offer, one month before the date of the examination.

[2] See footnote 3, page 121.

[3] Black silk lined with *white*.

[4] Immediately after obtaining the Degree, Candidates should apply for their Diplomas at the Matriculation office. There is no additional charge for the Diploma. Any Graduate who cannot apply personally is required to give written authority to some person to receive and give a receipt for it.

TIME-TABLES FOR M.A. EXAMINATIONS FOR 1898-99.

		M.A. Examinations.[1]	M.A. Honours Examinations.[1]
1898.			
Oct. 11	Tu.	English, 9-11, 11.30-1.30 Latin, 2.30-4.30	
,, 12	Wed.	Latin, 9-11 Greek, 11.30-1.30[2], 2.30-4.30	
,, 13	Th.	Mathematics, 9-11, 11.30-1.30 Natural Philosophy, 2.30-4.30	
,, 14	Fri.	Natural Philosophy, 9-11 Logic, 11.30-1.30, 2.30-4.30	
,, 15	Sat.	Moral Philosophy, 9-11, 11.30-1.30 History, 2-4	
,, 17	Mon.	History, 9-11 French, 11.30-1.30, 2-4	
,, 18	Tu.	CLASSES OPEN German, 9-11, 11.30-1.30 Essay, 2-3 French Essay, 3-4	
,, 31	Mon.	Education, 9-11 (M.A. & Diploma) Constitutional Law & History, 2-4	
Nov. 1	Tu.	Education, 9-11, 2-4 (M.A. & Diploma) Roman Law, 9-1 Constitutional Law & History, 2-4	
,, 3	Th.	Philosophy of Law, 9-11 Public International Law, 11.30-1.30 Political Economy, 2-4	
,, 4	Fri.	Political Economy, 9-11	
1899.			
Mar. 20	Mon.	Constitutional Law & History, 2-4	
,, 21	Tu.	Roman Law, 9-1 Constitutional Law & History, 2-4	
,, 23	Th.	Philosophy of Law, 9-11 Public International Law, 11.30-1.30 Sanskrit, 9-11, 11.30-1.30 Arabic and Syriac, 2.30-4.30	

NOTE.—In the Examinations for the Degree of M.A. in Roman Law, Public Law, and Constitutional Law and History, candidates who intend to proceed later to the Degree of LL.B. must pass on the LL.B. standard.

[1] It is impossible to avoid clashing between the hours of Examinations in the Pass subjects and in the Honours, and Scholarship Subjects, and Candidates should carefully consider early in their Curriculum the arrangements for these Examinations, in order, as far as possible, to avoid clashing.

[2] Also for Candidates for Honours in Mental Philosophy who have not included Greek as a Subject in the Examinations for the ordinary Degree of M.A.

		M.A. Examinations.[1]	M.A. Honours Examinations.[1]
1899.			
Mar. 24	Fri.	Political Economy, 9-11, 11.30-1.30	
,, 25	Sat.	Practical Chemistry, at hours to be announced (also on subsequent days if necessary).	
		Arabic and Syriac, 9-11	
,, 27	Mon.	Chemistry, 10-12	
		Geology, 1-3	
		Oral Examinations in Science Subjects may begin	
,, 28	Tu.	Zoology, 10-12	
		Botany, 1-3	
,, 29	Wed.	Celtic, 9-11, 11.30-1.30	
		Hebrew, 2.30-4.30	
,, 30	Th.	Hebrew, 9-11	
		Astronomy, 11.30-1.30, 2.30-4.30	
,, 31	Fri.	Education, 9-11, 11.30-1.30, 2-4 (M.A. and Schoolmaster's Diploma)	English, 9-12, 2-5
		Archæology and Art, 3-5	Constitutional History, 9-12, 2-5
Apr. 1	Sat.	Archæology and Art, 9-11	English, 9-12, 2-5
		English, 11.30-1.30, 2-4	Constitutional History, 9-12, 2-5
,, 3	Mon.	Logic, 9-11	English, 9-12, 2-5
		History, 12-2, 3-5	Classics, 9-12, 2-5
			Modern Languages, 9-12, 2-5
			Logic, 9-12, 2-5
			Pure Mathematics, 9-12, 2-5
			History, 9-12, 2-5
,, 4	Tu.	Latin, 9-11, 11.30-1.30	English, 9-12, 2-5
		Logic, 3-5	Classics, 9-12, 2-5
			Modern Langs., 9-12, 2-5
			Logic, 9-12
			Moral Philosophy, 2-5
			Pure Mathematics, 9-12
			Natural Philosophy, 2-5
			History, 9-12, 2-5

[1] The order of the papers set at the particular hours fixed for the general Honours Subjects, within any department or group, may be varied at the discretion of the Examiners. See footnote 1, page 123.

		M.A. Examinations.[1]	M.A. Honours Examinations.[1]
1899.			
Apr. 5	Wed.	Greek, 9-11,[2] 11.30-1.30 Mathematics, 3-5	Classics, 9-12, 2-5 Modern Languages, 9-12, 2-5 Moral Philosophy, 9-12, 2-5 Natural Philosophy, 9-12, 2-5 History of Art, 9-12, 2-5
,, 6	Th.	Mathematics, 9-11 Moral Philosophy, 11.30-1.30, 3-5	Classics, 9-12, 2-5 Modern Languages, 9-12
,, 7	Fri.	Natural Philosophy, 9-11, 11.30-1.30	Classics (Optional Subjects), 9-12, 2-5
,, 8	Sat.	French, 9-11, 11.30-1.30 Essay, 2-3	
,, 10	Mon.	German, 9-11, 11.30-1.30 Essay, 2-3	
,, 12	Wed.	MEETING OF M.A. EXAMINERS FOR OLD SUBJECTS.	
,, 14	Fri.	GRADUATION / COMMEMORATION	CEREMONIAL at 10 A.M. SERVICE at 12 noon.
July 15	Sat.	Practical Chemistry, at hours to be afterwards announced (also on following days if necessary).	
,, 17	Mon.	Chemistry, 10-12 Geology, 1-3 Oral Examinations in Science Subjects may begin	
,, 18	Tu.	Zoology, 10-12 Botany, 1-3	

PASS EXAMINATIONS FOR MASTER OF ARTS.

(See Time-Tables, Pages 123-125.)

The subjects for the Examinations for the Ordinary Degree October 1898 and April 1899 are as follows :—

I.—DEPARTMENT OF LANGUAGE AND LITERATURE.

1. *Latin for October* 1898 *and April* 1899.

Virgil, *Æneid*, vii. and viii.—Horace, *Odes*, iv.—Juvenal, *Satires*, i., iii., iv., v., vii.—Cicero, *Letters to Atticus*, i. ; and *Pro Archia*—Tacitus, *Annals*, i.

[1] See footnote 1, page 124. See also footnote 1, page 123.
[2] See footnote 2, page 123.

Translation from an Author or Authors not prescribed. Latin prose composition.

Roman History.—A general knowledge of Roman History from 300 B.C. to the death of Tiberius, and a special knowledge of the period from 70 B.C. to the death of Tiberius.

Roman Literature.—A general knowledge of the course of Roman Literature to the death of Trajan, and a special knowledge of the Lives and Works of Virgil, Horace, Juvenal, Cicero, and Tacitus.

Every Candidate is required to satisfy the Examiners in translating English into Latin prose.

2. *Greek for October* 1898 *and April* 1899.

Homer, *Iliad*, vi.—Eurip. *Hippolytus*—Thucyd., ii.—Demosth., *Olynth*, ii. and iii. Translation from an Author or Authors not prescribed. Greek prose composition.

Greek History.—A general knowledge of Greek History to the death of Alexander, and a more special knowledge of the period comprised in the life of Demosthenes.

Greek Literature.—A general knowledge of Greek Literature to the end of the 4th cent. B.C., and a more special knowledge of the prescribed Authors.

Laws of Hexameter and Iambic verse.

3. *English for October* 1898 *and for April and October* 1899.

The Principles of English Composition and Style: Class Lectures. History of the English Language: The First Five Chapters of Morris's "Historical Outlines of English Accidence." History of English Literature, more particularly from 1580 to 1798: Lectures, with Morley's Text Book, and the portions of Hallam's "Literature of Europe" that relate to English writers.

Special Books for October 1898—Shakespeare, *A Midsummer Night's Dream* and *Hamlet*—Chaucer, *Prologue to Canterbury Tales*—Spenser, *Shepherd's Calendar*—Milton, *Lycidas*, and *Tractate of Education*—Sir T. Browne, *Hydriotaphia*—Dryden, *Absalom and Achitophel*—Johnson, *Rasselas*—Goldsmith, *The Traveller*—Coleridge—Stopford Brooke's *Selections*—Tennyson, *Selections* (Webb and Rowe).

Special Books for April and October 1899—Shakespeare, *Antony and Cleopatra* and *The Merchant of Venice*—Chaucer, *Nun's Priest's Tale*—Spenser, *Faerie Queene*, Book v.—Milton, *Areopagitica* and *Paradise Lost*, Book i.—Addison, *Selected Essays*—Pope, *Essay on Criticism*—Gray, *Poems*—Keats, *Poems*—Browning, *Selected Poems*.

4. *French for October* 1898 *and April* 1899.

Corneille, *Cinna*, *Polyeucte*—Molière, *Misanthrope*, *Femmes Savantes*—Racine, *Britannicus*, *Phedre*, *Athalie*—Mignet, *Revolution Française*—V. Hugo, *Extraits*—Clédat, *Morceaux, choisis des Auteurs du Moyen-Age*—Rousseau, *Extraits*—Pascal, *Pensées*.

Passages from French Authors not prescribed. French prose composition. A general knowledge of the development of the French language. A general knowledge of French history, and of the history of French Literature, with a more minute knowledge of the period 1680-1780.

Every Candidate is required to satisfy the Examiners in translating English into French prose.

5. *German for October* 1898.

Walther von der Vogelweide, ed. Günther—*Brant*, *Luther*, *Sachs*, *Fischart*, ed. Pariser—*Kirchenlied und Volkslied*, ed. Ellinger—Schiller, *Wallenstein*, part i., ed. Breul—Schiller, *Geschichte des dreissigjährigen Krieges*, Buch iii., ed. Breul—Goethe, *Gedichte*—Riehl, *Die Ganerben*, ed. Wolstenholme—Seidel, *Der Schatz und Anderes*.

Passages from German Authors not prescribed. German prose composition. A general knowledge of the development of the language. A general knowledge of German History, and of the History of German Literature, with a more minute knowledge of the Authors prescribed and of the period 1740-1830.

Every Candidate is required to satisfy the Examiners in translating from and into German.

German for April 1899.

G. Klee, *Die deutschen Heldensagen*, ed. Wolstenholme (Pitt Press).
Walther von der Vogelweide, ed. Günther (Göschen).
Luther, Auswahl Kleiner Prosaschriften, ed. Schöppa (Velhagen).
Kunst-und Volkslied in der Reformationszeit, ed. Kinzel.
Lessing, *Philotas*, ed. Günther (Göschen).
Wieland, *Oberon*, ed. Hanke (Graeser).
Voss, *Homer's Ilias*, ed. Primozic (Graeser).
Goethe, *Aus meinem Leben*, Buch. xi.-xiv. (Cotta).
Goethe, *Egmont*, ed. Blume (Graeser).
Schiller, *Wallensteins Tod*, ed. Breul (Pitt Press).
Schiller, *Abfall der Niederlande* (Cotta).
Kleist, *Käthchen von Heilbronn*, ed. Lichtenheld (Gräser).
Uhland, *Gedichte* (Cotta).
Willibald Alexis, *Die Hosen des Herrn von Bredow*.

Passages from German Authors not prescribed, &c., same as for 1898.

6. *Sanskrit and Comparative Philology.*

Hitopadeśa (Johnson's ed., 1847), introduction and book i.—Nalopākhyānam (Bühler's ed.), cantos 1-12—Sanskrit Grammar—Sanskrit prose composition.

A general knowledge of the course of Sanskrit Literature.

7. *Semitic Languages.*

Hebrew.—1. Questions in Grammar. 2. Translation into Hebrew Prose. 3. Judges (chaps. i.-xx.). Kings, books 1 and 2. Joel, Amos. 4. *Jewish History* from B.C. 1010-598.

Syriac.—1. Questions in Grammar. 2. Translation into Syriac Prose. 3. Sections i., iii., ix., xii., xiv. of Rœdiger's *Chrestomathia Syriaca* (ed. 1892); *Book of Acts* in the Peshitta Version. 4. History of the Syriac Versions of the Scriptures in detail; Wright's *Short History of Syriac Literature*, pp. 1-107.

Arabic.—1. Questions in Grammar. 2. Translation into Arabic Prose. 3. Bruennow's *Chrestomathy of Arabic Prose Pieces*, pp. 1-22, 44-55; *The Kor'an*, Sûra iii.; short passage of unseen prose to translate into English 4. *Arabian History.*—Sir W. Muir's *The Caliphate:* its Rise, Decline, and Fall.—Chapters 1-45 and 64-67.

8. *Celtic.*

Modern Gaelic (Scottish and Irish)—Fingal, books iv.-vi., and A. Macdonald's Poems, *or* Keating's Three Shafts of Death.

Old Gaelic.—Longes mac n-Usnig (Windisch's Irische Texte).

Passages in Old and Modern Gaelic (both Scottish and Irish) from Authors not prescribed.

Translation from English into Gaelic Prose (Scottish *or* Irish).

History and Literature.—The History and Literature of the Scottish Highlands (1000-1560).

II.—Department of Mental Philosophy.

1. *Logic and Psychology.*

The elementary doctrines of Logic and Psychology; and the History of Philosophy so far as treated in the Class Lectures.—Locke's *Essay*, Book ii., Chapters 1-12, and Chapter 23; Professor Fraser's "*Selections from Berkeley*"—"Editor's Introduction"; "Principles of Human Knowledge" (sect. 1-84, and 135-156); "Divine Visual Language: A Dialogue." Hume's *Enquiry concerning Human Understanding.* —Sections 1-7 inclusive.

2. *Moral Philosophy.*

Professor's "Handbook of Moral Philosophy"; Butler "On Human Nature"; Kant's "Groundwork of the Metaphysics of Ethics"; Mill's "Utilitarianism"; Sidgwick's "Outlines of the History of Ethics," Chapters ii. and iv.

3. *Commercial and Political Economy.*

The subjects of examination are: The Lectures of the Professor; Mill's *Principles of Political Economy*, Books i.-iii.; Marshall's *Economics of Industry* (*new edition*); Adam Smith's *Wealth of Nations*, Book iv.; Professor Nicholson's *Money and Monetary Problems* (4th edition), *The Treatise on Money.*

4. *Theory, Art, and History of Education.*

Theory and Art.—Subjects of examination: Lectures of the Professor; *Locke's Thoughts* (parts which deal with moral training); *Locke on the Conduct of the Understanding; Language and Linguistic Method in the School, by Professor Laurie* (2nd edition); *Comenius' Great Didactic*, as in "*The Educational Life and Writings of Comenius*" *by Professor Laurie.*

The Theory or Science of Education comprises the Psychology and Ethics in Laurie's "*Institutes of Education.*"

History.—A general knowledge of Bacon, Ratke, Rousseau, and Pestalozzi, as in Compayrè's Manual, or Quick's Educational Biographies.

5. *Philosophy of Law.*

(*See under* "*Public Law.*")

III.—Department of Science.

1. *Mathematics.*

Arithmetic.—Euclid, Books i., ii., iii., iv., vi., and xi., or their equivalent, with their application to Mensuration.—Algebra, Trigonometry, Conic Sections, Geometrical and Analytical.

Candidates must show sufficient knowledge in each of these subjects.

2. *Natural Philosophy.*

Elementary Dynamics, Astronomy and Experimental Physics.

Candidates must show sufficient knowledge both of Dynamics and of Experimental Physics.

3. *Practical Astronomy.*

The Class Lectures.—Use of the Sextant, Transit-Circle, Wire and Ring Micrometers.—Young's General Astronomy; Main's Practical and Spherical Astronomy, or corresponding portions of Brünnow's Astronomy. Sir John Herschel's Outlines of Astronomy, omitting Part IV.

4. *Chemistry.*

Chemical changes as distinguished from physical changes. Elements; compounds; mixtures. Laws of chemical combination by weight and by volume. The atomic theory. Atoms; molecules. Avogadro's Hypothesis. Molecular weights of gaseous and volatile substances. Atomic weights. Law of Dulong and Petit. Chemical Notation—Symbols; formulæ; equations. Simple chemical calculations.

The non-metallic elements and their chief compounds; especially the compounds of oxygen, of hydrogen, and of chlorine, with the other non-metals. The more important inorganic acids. The atmosphere. Combustion. Oxidation and reduction.

The following metallic elements and their chief compounds; especially those with oxygen, with chlorine, and with sulphur: Gold, platinum, silver, mercury, lead, antimony, tin, copper, bismuth, zinc, iron, aluminium, chromium, manganese, barium, strontium, calcium, magnesium, potassium, sodium.

The following salts: the ammonium salts; the more important sulphates, sulphites, thiosulphates, nitrates, nitrites, carbonates, bromides, iodides, iodates, phosphates, borates, silicates

The relations of bases, acids, and salts. Electrolysis. Quantivalence. The periodic law.

The metallurgy of silver, mercury, copper, lead, tin, zinc, iron (including cast iron and steel). Alloys, such as brass, bronze, solder, type-metal. Amalgams.

The manufacture of aluminium, magnesium, potassium, sodium, glass, porcelain, mortar, gunpowder, sulphuric acid, sodium carbonate and bicarbonate, caustic soda, bleaching powder and chlorates, wrought-iron, steel, white lead.

Classification of Carbon Compounds. Marsh Gas and its Homologues. Chloroform. Methyl and Ethyl Alcohols and Ethers. Substituted ammonias and ammonium salts. Formic and Acetic Acids, Aldehyde, Acetone, Chloral, Olefiant Gas, Acetyline, Oxalic Acid, Lactic Acid. Tartaric Acid, Citric Acid. Fats and Oils, Saponification, Glycerine. Cellulose, Sugars, Starch. Distillation of Wood and of Coal. Benzene, Benzoic Acid, Phenol, Salicylic Acid, Oil of Bitter Almonds. Hydrocyanic Acid, Cyanides, Cyanates, Thiocyanates, Urea, Uric Acid.

Simple Qualitative Analysis. The examination in this is conducted practically. Candidates are required to examine unknown *single salts* for both metallic and salt radicals, as contained in the following lists:—

Silver, Mercurous, Mercuric, Cupric, Lead, Stannous, Stannic, Bismuth, Antimony (*Tartar Emetic* may be given), Arsenious, Zinc, Manganous, Ferrous, Ferric, Chromic, Aluminium, Calcium, Barium, Strontium, Magnesium, Ammonium, Sodium, Potassium.

Carbonate, Sulphite, Thiosulphate, Sulphide, Hypochlorite (Bleaching solution), Nitrite, Chloride, Bromide, Iodide, Cyanide, Sulphate, Chromate, Orthophosphate, Arseniate, Arsenite, Borate, Oxalate, Nitrate, Chlorate, Acetate.

At the examination, Candidates are supplied with the following reagents, &c.:—Acetic Acid, dilute Hydrochloric Acid, dilute Nitric Acid, Sulphuric Acid, dilute Sulphuric Acid, Alcohol, Iodine, Ammonia, Ammonium Carbonate, Ammonium Chloride, Ammonium Oxalate, Ammonium Sulphide, Barium Nitrate, Bleaching Powder, Calcium Chloride, Calcium Hydrate, Calcium Sulphate, Cobaltous Nitrate, Cupric Sulphate, Ferric Chloride, Ferrous Sulphate, Lead Acetate, Magnesium Sulphate, Mercuric Chloride, Potassium Carbonate, Potassium Chromate, Potassium Ferricyanide, Potassium Ferrocyanide, Potassium Hydrate, Potassium Iodide, Silver Nitrate,

Sodium Bitartrate, Sodium Phosphate, Sodium Sulphite, Stannous Chloride, Sulphuretted Hydrogen. *Solids* — Manganese Dioxide, Sodium Carbonate, Borax, Sulphur, Zinc, Copper.

Test-papers :—Blue Litmus, Red Litmus, Plain, Starch, Turmeric.

Bunsen Burner, Test Tubes.

5. *Zoology.*

(*a*) The General Principles of Biology.

(*b*) The distinctive characters of the Invertebrate groups and the structure, habits, &c., of Amœba, Paramœcium, Hydra, Arenicola, Hirudo, Anodon, Helix, Nephrops, and Periplaneta.

(*c*) The distinctive characters of the Chordata groups and the structure, habits, &c., of Myxine, Raia, Clupea, Rana, Columba, Ornithorhynchus, Macropus, Lepus, Ovis, and Canis.

(*d*) The skeletons of Crocodilus, Equus, Felis catus, Balæna, Vespertilio, and Simia (Orang).

(*e*) A general knowledge of the orders of Sauropsida and Mammalia.

(*f*) The structure and life-history of Gregarina, Distoma, Tænia, Ascaris, Trichina, and Filaria.

(*g*) The more important facts of the development of Scyllium, Rana, Gallus, and Lepus.

(*h*) The principles of the Geographical Distribution of Animals, and the Distribution of the Mammalia.

In addition to the above subjects, Candidates will require to possess a general knowledge of Wallace's "Darwinism."

6. *Botany.*

The characteristic features of the following groups and classes of the vegetable kingdom :—

Thallophyta [Schizophyta, Algæ, Fungi]; Muscineæ [Hepaticæ, Musci]; Pteridophyta [Filicineæ, Equisetineæ, Lycopodineæ]; Phanerogamæ [Gymnospermæ, Angiospermæ (Monocotyledones, Dicotyledones)].

The fundamental facts and principles of Morphology (including Anatomy, Histology, and Development) and Physiology.

The life-history of the following plants: — Bacterium, Nostoc, Spirogyra, Saccharomyces, Mucor, Vaucheria, Agaricus, Collema, Puccinia, Claviceps, Eurotium, Marchantia, Fucus, Polysiphonia, Funaria, Aspidium, Equisetum, Selaginella, Pinus, Cycas, Scilla, Capsella, Helianthus, Ulmus, Quercus.

The characters of plants belonging to the chief British natural orders of Phanerogamæ.

7. *Geology including Mineralogy.*

1. *Dynamical Geology.*—The nature and operation of geological agents :—The Atmosphere, Rain, Terrestrial Waters, Ice, the Sea, Plants and Animals, Volcanoes, Movements of the Earth's Crust.

2. *Mineralogy.*—Characters of the chief rock-forming minerals.

3. *Petrology.*—Megascopic and Microscopic Characters, Composition, Origin and Distribution of the more important Rocks.

4. *Structural Geology.*—Structure of Rock-masses, Bedding, Joints, Cleavage, Foliation, Metamorphism, Faults, Unconformity.

5. *Stratigraphical Geology.*—History of the Geological Systems of the British Islands.

6. *Palæontological Geology.*—Characters, and distribution in time, of the more important Genera and Orders found fossil in Britain.

7. *Physiographical Geology.*—Origin of the present outlines of the Earth's surface.

IV.—Department of History and Law.

1. *History.*

Subject of Examination for 1898-1899.

General British History, viz. :—(1) History of the British Isles from B.C. 55 to A.D. 1885, in outline; (2) History of Great Britain and Ireland from 1603 to 1689, in fuller detail.

The Examiners will attach greater importance to a grasp of principles than to mere knowledge of details.

Books recommended :—(*a*) For the *General History*, Gardiner's "Student's History of England," Green's "Short History of the English People," Bright's "History of England," or Ransome's "Advanced History of England," Macarthur's "History of Scotland," Morris' "History of Ireland." (*b*) For the *Special Period*, Gardiner, "Puritan Revolution" (Epoch Series); Hallam, "Constitutional History of England"; Harrison, "Oliver Cromwell"; Macaulay, "History of England"; Burton, "History of Scotland."

2. *Archæology and Art* (*History of*).

The subjects for examination will be the Class lectures, the Professor's Manual "The Fine Arts," Conway's "Dawn of Art in the Ancient World," Tarbell's "History of Greek Art," Parker's "Introduction to Gothic Architecture," Poynter's "Classic and Italian Painting." Candidates will be expected to show some knowledge of the original authorities for the different periods of Art History.

3. *Constitutional Law and History.*

Subjects of examination: Constitutional Law and History of England, as treated of in the Lectures, and in the works of Stubbs, Hallam, and May; and that of the U.S. of America, of France, of Germany, and of Switzerland, as treated of in the Lectures, and in the works of Bancroft, Bryce, Adams and Cunningham, Dareste, Demombynes, &c.

4. *Roman Law.*

Subjects of examination: (1) The history of the law from the foundation of Rome to Justinian, and (2) a general knowledge of the principles and doctrines of the Law. Maine's "Ancient Law," and

Muirhead's "Historical Introduction," are recommended for the historical part, and Justinian's Institutes, Bk. i. to Bk. iv., Tit. vi., must be professed for the doctrinal part.

5. *Public Law.*

I. The Philosophy of Law.

Green, Principles of Political Obligation; Ritchie, Natural Rights; Lorimer, Institutes of Law; Ahrens, Cour de Droit Naturel; Bluntschli, The Theory of the State. The Student's Austin; Holland, Jurisprudence; Pollock, First Book of Jurisprudence; Sir H. Maine's Works.

II. Public International Law.

Wheaton's "History of the Law of Nations," Nys's "Les Origines du Droit International," Hall's "International Law."

EXAMINATIONS FOR GRADUATION IN ARTS WITH HONOURS.

(*Examinations for Honours are held in April only.*)

(See Time-Table of Examinations, pp. 123-125.)

A.—Classics.

N.B.—It should be understood that a general acquaintance with the Greek and Latin writers of the classical age will be expected from all candidates; and unseen passages from other than the prescribed authors will form an important part of the examination.

The subjects of Examination for the Degree of Master of Arts with Honours in April 1899 and 1900 are as follows:—

1. *Latin for April* 1899.

Plautus, *Aulularia* and *Pseudolus*—Catullus and Propertius (*Selections, ed. by Simpson and by Postgate in Macmillan's Series*)—Horace—Martial, vii.-xii. (*Sellar and Ramsay's Selections*)—Cicero, *Letters* (*Watson's Selected Letters, Parts III. and IV.*)—Quintilian, *Inst. Orat.*, x.—Tacitus, *Histories*, iii.-v. and *Agricola.*

Latin prose composition and translation from Authors not prescribed.

Roman History.—A general knowledge of Roman History to the end of the first century after Christ, and a more special knowledge of the periods 70-44 B.C., and from the death of Nero to the death of Domitian.

Roman Literature.—A general knowledge of the course of Roman Literature, and a more minute knowledge of the Lives and Writings of the Authors prescribed.

Latin for April 1900.

Virgil—Persius—Juvenal (omitting satires ii., vi., and ix.)—Remains of Early Roman Poetry, ed. Merry—Cicero's *Letters*, Watson's

Selection, pt. iii.)—Cæsar, *De Bello Civili*, i.-iii.—Tacitus, *Annals*, i.-iv.

Latin prose composition. Translation from Authors not prescribed. Candidates may also offer Verse Composition.

Roman History.—A general knowledge of Roman History to 100 A.D., and a more special knowledge of the period from 100 B.C. to the death of Tiberius.

Roman Literature.—A general knowledge of the course of Roman Literature, and a more minute knowledge of the Lives and Writings of the Authors prescribed.

2. *Greek for April* 1899.

Homer, *Iliad*, i.-xii.—Pindar, *Nemean and Isthmian Odes*—Æschylus, *Agamemnon*, *Eumenides*—Demosthenes, *Androtion*, *Aristocrates*, *Timocrates*—Aristotle, *Poetics*.

Greek Prose Composition—Translation from Authors not prescribed.

Greek History.—A general knowledge of Greek History to the death of Alexander, and a more minute knowledge of the development of the Athenian constitution.

Greek Literature.—A general knowledge of Greek Literature, and a more minute knowledge of the Authors prescribed.

Greek Grammar.—As a special subject, Monro's *Homeric Grammar* (the part relating to Homeric Syntax).

Greek for April 1900.

Homer, *Iliad*, xiii.-xxiv.—Æschylus, *Agam.*, *Choeph.*—Thucydides, v., vi.—Aristotle, *Nic. Ethics*, i.-iv. (inclusive) and x.

Greek prose composition—Translation from Authors not prescribed. Candidates may offer Verse Composition.

Greek History.—A general knowledge of Greek History to the death of Alexander, and a more minute knowledge of the development of the Athenian constitution (with special reference to Aristotle's *Constitution of Athens*).

Greek Literature.—A general knowledge of Greek Literature, and a more minute knowledge of the Authors prescribed.

Greek Grammar.—As a special subject, Monro's *Homeric Grammar* (the part relating to Homeric Syntax).

Optional Subjects.

1. *Comparative Philology for April* 1899 *and April* 1900.

Candidates who take Comparative Philology as their optional subject for Graduation with Honours in Classics, will be examined in the following branches of Linguistic Science:—(*a*) Science of Language, including the history and general results of Linguistic research. (*b*) Principles of Indo-European Comparative Philology, with special reference to the Greek and Latin Languages. (*c*) Etymology of Greek and Latin.

Books recommended for private study :—(*a*) M. Müller, Lectures on the Science of Language. W. D. Whitney, Language and the Study of Language. B. Delbrück, Introduction to the Study of Language. (*b*) P. Giles, Short Manual of Comparative Philollogy.

Also recommended for reference :—King & Cookson, Principles of Sound and Inflexion. Brugmann & Stolz, Greek and Latin Grammar (Iwan Müller's Handbuch der Klassischen Alterthumswissenschaft, vol. ii.). Blass, Pronunciation of Ancient Greek (Cambridge University Press). (*c*) Curtius, Principles of Greek Etymology, Book ii.

Classical Archæology for April 1899.

1. The general history of the Arts of Form in Greece. To be studied in Overbeck's "Schriftquellen" and Murray's "Handbook of Greek Archæology."

2. The history of Greek Sculpture. To be studied in E. Gardner's "Handbook of Greek Sculpture" and Brunn-Bruckmann's Photographs.

3. Greek Vase Painting. To be studied in Harrison and M'Coll's "Greek Vase Painting."

Classical Archæology for April 1900.

1. The general history of the Arts of Form in Greece. To be studied in Overbeck's "Schriftquellen," and Murray's "Handbook of Greek Archæology."

2. The history of Greek Sculpture. To be studied in E. Gardner's "Handbook of Greek Sculpture" and Brunn-Bruckmann's Photographs.

3. The types of Greek Coins. To be studied in P. Gardner's "The Types of Greek Coins."

Ancient Philosophy for April 1899.

The Pre-Socratic Philosophy, with original authorities as quoted in Ritter and Preller, *Historia Philosophiae Graecae;* The Sophists and Socrates; Plato, *Theætetus*, together with the outlines of the Platonic Philosophy.

Books recommended :—Zeller, *Pre-Socratic Philosophy*, vol. i. and ii. (Translation by Alleyne). Burnet, *Early Greek Philosophy.*

Or, as an alternative :

Plato, *Philebus*, together with the outlines of the Platonic Philosophy; the Philosophy of Aristotle in its psychological and ethical aspects, with special reference to Aristotle, *De Anima*, and *Nicom. Ethics*, bks. i.-iv. and x.

Ancient Philosophy for April 1900.

The Pre-Socratic Philosophy, with original authorities as quoted in Ritter and Preller, *Historia Philosophiae Graecae;* The Sophists and Socrates; Plato, *Theætetus*, together with the outlines of the Platonic Philosophy.

Books recommended :—Zeller, *Pre-Socratic Philosophy*, vol. i. and ii. (Translation by Alleyne). Burnet, *Early Greek Philosophy.*

Or, as an alternative:

Plato, *Philebus*, together with the outlines of the Platonic Philosophy; the Psychology and Logic of Aristotle, with special reference to Aristotle, *De Anima*, and Trendelenburg's *Elementa Logices Aristoteleae.*

B.—Mental Philosophy.[1]

1. *Logic and Metaphysics for April* 1899 *and April* 1900.

The more advanced doctrines of Logic and Psychology.

A competent knowledge of the History of Philosophy.

Plato, *Theætetus*—Aristotle, *De Anima*—Spinoza, *Ethics*, Parts i., ii.—Locke, *Essay concerning Human Understanding*—Berkeley, in Professor Fraser's "*Selections.*"—Hume, *Treatise on Human Nature*, Book i. (Of the Understanding)—Kant, *Critique of Pure Reason*—Hegel's *Logic* in Professor Wallace's translation, chapters i.-vi.—Lotze's *Metaphysics*, Book i. (Clarendon Press).

2. *Moral Philosophy for April* 1899 *and April* 1900.

The Class Lectures for Advanced Students.

Plato's *Protagoras*—Plato's *Republic*—Aristotle, *Ethics* (omitting v., vi., vii.)—Spinoza, *Ethics*, Parts iii., iv., v.—Kant, *Critique of the Practical Reason*—Hegel's *Philosophy of Right* (Dyde's Translation)—Sidgwick's *Methods of Ethics*, Books iii. and iv.—Green's *Prolegomena of Ethics*, Books ii. and iii.—Herbert Spencer's *Data of Ethics.*

C.—Mathematics and Natural Philosophy.

Pure Geometry, Algebra, Theory of Equations, including Determinants, Trigonometry (Plane and Spherical), Analytical Geometry, Differential and Integral Calculus, Calculus of Finite Differences. (The Candidate may, if he please, profess the Elements of Quaternion Analysis.)

Experimental Physics; Analytical Dynamics and Thermodynamics; *imperative.*

In addition, two or more branches of Elementary Mathematical Physics (such as Geometrical or Physical Optics, Statical or Voltaic Electricity, Capillarity, &c.). These may be selected by the Candidate.

Students who select special subjects should consult the Examiners regarding the scope of their examination, and the text-books which they should use.

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[1] The special examination in Greek (see p. 125) will be held at the same time as the first paper of the M.A. Pass Examination in Greek, and will consist of (1) Passages for translation from Aristotle, *Nic. Ethics*, bk. i.; Plato, *Republic*, bk. vii., or *Protagoras*; (2) Easy passages for unseen translation from Xenophon, Plato, or Aristotle. Candidates must send in their names, and state which dialogue of Plato they offer, one month before the date of the examination.

D.—English (Language, Literature, and British History).

1. Candidates for Honours in English must attend at least four complete courses of Lectures within their Honours group, viz.: (*a*) Not less than two Courses in English Literature, of which one at least must be an Honours Course; and—(*b*) not less than two Courses—one of which at least must be an Honours Course—in the Subsidiary subjects, English Language and British History; or in either of them.

2. Every such candidate must be examined in all the three subjects mentioned in the Regulations, Section XI. (1) *f*.

3. *British History.*

Those branches of British History which form the subjects of the Courses given by the Professors of History. Candidates to intimate the subjects they select at the time of entering their names for Examination.

Subjects for April 1899.

1. *Literature.*

1. Rhetoric and the Principles of Literature. Knowledge of the following required:—Aristotle's *Rhetoric* and *Poetics;* Quintilian's *Institutes*, especially Books ix. and x.; Longinus, *On the Sublime;* Dante, *De Vulgari Eloquio;* Jonson, *Discoveries;* Dryden, *Essay of Dramatic Poesy;* Johnson, *Lives of Cowley*, *Milton*, *Dryden*, *Pope*, and *Gray;* De Quincey's *Essay on Rhetoric;* Masson's *Essay on Milton's English and Versification* (in Edition of Milton); Guest's *English Rhythms;* Wordsworth's *Prose Prefaces;* Coleridge, *Biographia Literaria*, cap. xiv. to end; M. Arnold, *Essays in Criticism* (Preface and two first Essays with Prefatory Essay to Ward's *Poets*).

2. History of English Literature. (1.) *General.—Books recommended:*—Ten Brink's *Early English Literature* (transl. by Kennedy); Stopford Brooke's *Early English Literature;* Ward's *English Dramatic Literature;* Saintsbury's *Elizabethan Literature* and *Nineteenth Century Literature;* Gosse's *Eighteenth Century Literature;* Ward's *English Poets;* Craik's *English Prose;* Irving's *History of Scottish Poetry*. (2.) *Special.*—The Literature of the Nineteenth Century. Candidates are expected to show a thorough knowledge of the following:—Wordsworth, *Lyrical Ballads*, *Excursion*, and *Duddon Sonnets;* Coleridge, Stopford Brooke's *Selections;* Byron, Shelley, Landor, and Southey, in the Golden Treasury Series; Keats, *Poems;* Macaulay, Essays on *Restoration Drama*, *Clive*, *Ranke*, *Boswell's Johnson;* Carlyle, *Sartor Resartus* and *John Sterling;* Tennyson, *Poems* (up to 1850); Browning, *Selections;* M. Arnold, *Selected Poems* and *Essays in Criticism;* Ruskin, *Selections*, Vol. I.

3. The subjects of any other Honours Course in English Literature the Candidate may have attended.

Candidates will be required to write a Critical Essay on some subject arising out of Nos. 1, 2, or 3.

2. *Language.*

1. The History of Old and Middle English.
   Text-books for reference.—See page 70, under Course on the History of Old and Middle English.
2. *Special Readings.—Beowulf* (ll. 1251-1887); The Verse Passages in the *Saxon Chronicle;* Prose Selections in Sweet's *Anglo-Saxon Reader;* Morris's *Specimens of Early English*, Part I.; Chaucer's *Minor Poems* (ed. Skeat); *Laurence Minot; The Kingis Quair;* Gavin Douglas's *Prologues to the Æneid.*
3. Unseen passages for translation into Modern English.

3. *British History.*

Those branches of British History which form the subjects of the Courses given by the Professors of History. Candidates to intimate the subjects they select at the time of entering their names for Examination.

Subjects for April 1900.

1. *Literature.*

1. Rhetoric and the Principles of Literature. Knowledge of the following required:—Aristotle's *Rhetoric* and *Poetics;* Quintilian's *Institutes*, especially Books ix. and x.; Longinus, *On the Sublime;* Dante, *De Vulgari Eloquio;* Jonson, *Discoveries;* Dryden, *Essay of Dramatic Poesy;* Johnson, *Lives of Cowley*, *Milton*, *Dryden*, *Pope*, and *Gray;* De Quincey's *Essay on Rhetoric;* Masson's *Essay on Milton's English and Versification* (in Edition of Milton); Guest's *English Rhythms;* Wordsworth's *Prose Prefaces;* Coleridge, *Biographia Literaria*, cap. xiv. to end; M. Arnold, *Essays in Criticism* (Preface and two first Essays with Prefatory Essay to Ward's *Poets*).

2. History of English Literature. (1.) *General.—Books recommended:*—Ten Brink's *Early English Literature* (transl. by Kennedy); Stopford Brooke's *Early English Literature;* Ward's *English Dramatic Literature;* Saintsbury's *Elizabethan Literature* and *Nineteenth Century Literature;* Gosse's *Eighteenth Century Literature;* Ward's *English Poets;* Craik's *English Prose;* Irving's *History of Scottish Poetry.* (2.) *Special.*—Literature from Chaucer to Skelton. Candidates are required to show thorough knowledge of the following:—Chaucer, *Prologue to Canterbury Tales* and *Troilus and Cressida;* Langland, *Piers Plowman*, A Text; Gower, *Confessio Amantis* (Morley's ed.); King James I., *The King's Quair;* Henryson, *The Testament of Cressid;* Dunbar, *Longer Poems;* Gavin Douglas. *Prologues to the Æneid;* Lydgate, Halliwell's *Minor Poems of;* Occleve, *Poems*, E.E.T.S., Vol. I.; Hawes, *The Pastime of Pleasure;* Skelton, *The Crown of Laurel* and *Colin Clout;* Malory, *Morte d'Arthure* (Globe ed.); Berners, *Froissart* (Globe ed.).

3. The subjects of any other Honours Course in English Literature the Candidate may have attended.

Candidates will be required to write a Critical Essay on some subject arising out of Nos. 1, 2, or 3.

2. *Language.*

1. The History of Old and Middle English.—For Books recommended for reference see page 70, under Course on the History of Old and Middle English.

2. *Special Readings.—Beowulf* (ll. 1-1250); The Preface to King Alfred's Version of Gregory's *Pastoral Care;* Morris and Skeat's *Specimens*, I. and II., in illustration of O.E. and M.E. Dialects; the prescribed books of Chaucer and Skelton; *The Thrissil and the Rois; The Complaynt of Scotlande.*

3. Unseen passages for translation into Modern English.

E.—Modern Languages and Literature.

French for April 1899.

Clédat, *Morceaux choisis du Moyen-Age;* Faguet, *Etudes sur le* 19*me siècle*—Faguet, *Politiques et Moralistes au* 19*me siècle*—Lanson, *Histoire de la Littérature française*—Taine, *Extraits.*—Michelet, *Précis de la Révolution française*—V. Hugo, *Les Contemplations*—Rousseau—Pascal.

French History—A general knowledge of French History, and a more minute knowledge of the period from 1789 to 1870.

French Literature.—A general knowledge of the history of French Literature, and a special knowledge of the period from 1802 to 1889.

Romance Philology.—The general principles of Romance Philology (Brachet, *Grammaire historique;* Bartsch, *La Littérature française jusqu'au* 14*me siècle;* Brunot, *Grammaire historique*, 3rd ed.).

French for April 1900.

Corneille, *Chefs d'œuvre*—Molière, *Chefs d'œuvre*—Racine, *Chefs d'œuvre*—Montaigne, *Essais*—V. Hugo, *Année Terrible*—Lamartine, *Histoire des Girondins*—La Bruyère, *Caractères*—Rousseau—Pascal.

French History, *French Literature*, and *Romance Philology* as for 1899.

German for April 1899.

Althochdeutsche Litteratur (ed. Schauffler)—*Hartmann von Aue*, &c. (ed. Marold)—*Das deutsche Heldenbuch* (ed. Henrici)—Herder, *Von deutscher Art und Kunst* (ed. Lambel)—Goethe, *Iphigenie* (ed. Breul)—Schiller, *Kleinere philosophische Schriften* (ed. Boxberger)—J. P. F. Richter, *Flegeljahre* (ed. Nerrlich)—Shakespeare, *Hamlet*, übersetzt Schlegel (ed. Sachs).—Platen, *Gedichte*—Scheffel, *Ekkehard.*

German History.—A general knowledge of German History, and a more minute knowledge of the period from 1700 to 1820.

German Literature.—A general knowledge of German Literature, and a special knowledge of the authors prescribed and of the period from 1740 to 1832 (Scherer, *History of German Literature;* Kluge, *National-Litteratur*).

Teutonic Philology.—The general principles of Teutonic Philology, and a more intimate knowledge of Modern German Etymology (Duden, *Etymologie der Neuhochdeutschen Sprache*).

German for April 1900.

Deutsche Mythologie, F. Kauffmann (Göschen).
Althochdeutsche Litteratur, ed. Schauffler (Göschen).
Der arme Heinrich, Hartmann von Aue, ed. T. G. Robertson.
Reinke de Vos, ed. F. Prien (Paul, Altdeutsche Textbibl.).
Hans Sachs, Auswahl, ed. K. Kinzel.
Grimmelshausen, *Simplicissimus*, ed. G. Klee (Velhagen).
Das deutsche Volkslied, ed. A. Matthias (Velhagen).
Herder, Kleinere Prosaschriften, ed. R. Franz (Velhagen).
Schiller, *Anmut und Würde.*
Schiller, *die Räuber*, ed. T. Neubauer (Graeser).
Goethe, *Aus meinem Leben*, Buch xv.-xx. (Cotta).
Goethe, *Torquato Tasso*, ed. T. Neubauer (Graeser).
Hölderlin, Gedichte (Cotta).
J. Paul Richter, *Schulmeisterlein Maria Wuz.*
Spielhagen, *Quisisana.*
H. v. Stein, *Goethe und Schiller* (Reclam).
Reuter, *Hanne Nüte* (Volksausgabe).
German History, *German Literature*, and *Teutonic Philology*, as for 1899.

F.—History.

Candidates for Honours in History must attend two Classes (one at least of which must be an Honours Class) in each of their Honours Subjects.

The Honours subjects at present recognised are (1) Modern History, (2) Constitutional History, and (3) History of Art. For the Ordinary and the Honours Courses, see pages 94-99.

I. Under the head of *Modern History* four papers will be set.

Subjects for 1899.

(1) General survey of British History, from B.C. 55 to A.D. 1885, with special attention to the period 1603-1689. Some knowledge of Gardiner's "Documents"; Carlyle's "Cromwell" will be required.

(2) "England, Scotland, and France at the close of the Middle Ages, A.D. 1415-1485," *or*, "Great Britain and Europe, 1815-1885, with special attention to the Revolution of 1848." Some knowledge of the following books—"Mémoires de Commines"; "Paston Letters"; Fortescue, "Governance of England"; *or*, Lamartine's "Histoire de la Revolution de 1848," and Louis Blanc's "Histoire de la Revolution de 1848," will be required. For other Authorities, see pages 96 and 97.

Subjects for 1900.

(1) General survey of British History from B.C. 55 to A.D. 1885, with special attention to the period 1215-1328. Some knowledge of

Stubbs' "Select Charters," and of Barbour's "Bruce," will be required.

(2) As in 1899.

II. In *Constitutional History* (see outline of Lectures, page 298) four papers :—

Subjects for 1899 *and* 1900.

(1) and (2) Constitutional History of England (*a*) from 1066 to 1450; (*b*) from 1688 to 1707.

(3) Historical Origins of the chief European Constitutions.

(4) History of Civil and Religious Liberty, from 1384 to 1563.

The Candidate must show some familiarity with the original sources (in Latin, French, Old English, &c.).

III. In *History of Art* four papers :—

Subjects for 1899 and 1900.

(1) The general subject (two papers) embracing :—The Class Lectures; the Professor's Manual "The Fine Arts"; Conway's "Dawn of Art in the Ancient World"; Maspero's "Dawn of Civilization" and "The Struggle of the Nations"; Woltmann's "History of Painting," Vol. I.; Vasari's "Lives" of Giotto, Angelico, Donatello, Brunelleschi, Michel Angelo (in Blashfield and Hopkins' edition of the "Lives," or in Bohn's translation, with the addition of Richter's Notes in Vol. vi. of Bohn's edition).

(2) Classical Archæology (two papers). The examination will be in the same books, &c., as those prescribed in this subject in 1899 for Honours in Classics (see p. 135), and the papers will be set at the same time.

REGULATIONS FOR SCHOOLMASTER'S DIPLOMA.

1. Candidates for the Schoolmaster's Diploma must be graduates in Arts of a Scottish, English, or Irish University, or of some other University approved of by the Senatus and the University Court.

2. Each Candidate must have matriculated in the University for the year in which he presents himself for the Diploma.

3. Each Candidate must have attended the Class of the Theory, Art, and History of Education in the University.

4. Each Candidate must pass an Examination in the Theory, Art, and History of Education, to be conducted by the Professor of that subject, and an Examiner appointed by the University Court.

5. The subjects of Examination are announced annually in the *University Calendar*.

6. Each Candidate must give evidence either—

(*a.*) That he has attended a Course of Practical Instruction as a Queen's Scholar in a Training College for Teachers; *or*

(*b.*) That he has gone through a complete course of Practical training in a Training College for Teachers—the Course to extend over not less than five months (eight hours weekly), and to include Demonstration and Criticism Lessons ; *or*

(*c.*) That she has completed a Practical Course in St George's Training College, Edinburgh, and passed the practical examination of the University of Cambridge Syndicate.

N.B.—*Those desirous of obtaining the Secondary School Diploma will further be required to spend a month in a Secondary School.*[1]

7. Each Candidate must further satisfy the University of his practical aptitude as a Teacher by teaching a class in some special Subject or Subjects in which he has received instruction in the University, or in any Institution recognised by the University as qualifying for Degrees.

8. Each successful Candidate will receive a Diploma signed by the Vice-Chancellor of the University, or, in his absence, by the Principal or the Senior Professor. This Diploma is of two grades: (*a*) *Secondary School Diploma*, for Masters of Arts with Honours in any Department, testifying to their fitness for Secondary Schoolmasterships, and will state the Special Subjects in which the holder of the Diploma is qualified. When a Candidate requires special mention made of his competency to teach French or German, he is required to pass a practical examination in French or German pronunciation and conversation ; (*b*) *General Diploma*, for those who have taken the ordinary Degree of M.A. This is recognised by the Scottish and English Education Departments as qualifying (in the case of Graduates of the University of Edinburgh) for employment in Public Schools.

9. The Fee for the Diploma is £2, 2s.

The Examinations are held in October and March, and Candidates are required to enter their names and pay the Examination Fees at the *Matriculation Office* on or before 4th October and 3rd March, for the October and March Examinations respectively.

The subjects of Examination are the same as for Graduation in Education (which see, page 129), but the Standard of Pass is much higher, *with the addition* of Milton's "Tractate" ; Quintilian's "Institutions," Books I. and II. ; and "The History of Education, Hellenic and Roman," as in the "Historical Survey of Pre-Christian Education," by the Professor ; and the General Outlines of History, as in Quick's "Biographies," from 1750 A.D.

A short Thesis will be prescribed to be written in the Examination Room on an Educational subject.

[1] The Royal High School and the Heriot Secondary School have been made available for this purpose.

Competitive Examinations for Bursaries in Arts.

HONOURS LIST.

October 1897.

I.—Students Entering First Session.

A. General Bursary List.

(*Subjects of Examination* — English, Latin, Greek, Mathematics, French, German, Italian, and Dynamics (with additional papers in English, Latin, Greek, and Mathematics). Candidates select not more than five subjects. Those who select Latin, Greek, or Mathematics take the papers on these subjects on the Higher Standard.)

1. D. G. Robertson, George Watson's College.
2. A. R. Low, George Watson's College.
3. A. J. Sturrock, George Watson's College. / W. H. Nelson, George Watson's College.
4. J. S. Kinghorn, George Watson's College.
5. F. J. Gordon, Royal High School.
6. Thomas Nicol, George Watson's College.
7. J. G. Sutherland, George Watson's College.
8. J. B. Duncan, Forfar Academy.
9. J. R. Cuthbert, Ayr Academy.
10. M. F. Simpson, George Watson's College.
11. T. J. C. Gifford, George Watson's College.
12. D. C. Davidson, Daniel Stewart's College.
13. Ernest Shearer, Kirkwall Burgh School.
14. R. W. Johnstone, George Watson's College. / James Anderson, Anderson's Institution, Forres.
15. G. L. Brander, Royal High School.
16. Alexander MacRae, George Watson's College.
17. G. T. Ford, George Watson's College.
18. M. M. Craig, Daniel Stewart's College.
19. William Pryde, Royal High School. / A. W. M'Clymont, George Watson's College.
20. F. H. T. Gray, George Watson's College.
21. R. C. Wallace, Kirkwall Burgh School.
22. A. O. Anderson, Royal High School.
23. J. M. B. Duncan, Merchiston Castle.
24. A. F. M. Clark, Kirkcaldy High School.
25. James Williamson, Kirkcudbright Academy.
26. A. M. Gloag, Royal High School.
27. Charles Jamieson, Ayr Academy.
28. J. I. Low, Blairgowrie Public School.
29. Robert Douglas, High School, Dundee.
30. Charles Robertson, Daniel Stewart's College.
31. J. S. Clark, Royal High School.
32. John M'Dougall, Daniel Stewart's College.
33. J. D. Little, George Watson's College.
34. A. M. Nisbet, Edinburgh Academy.
35. Alexander Duthie, Boston Latin School.
36. H. M. Simson, George Watson's College.
37. H. D. F. Dunnett, Kilmarnock Academy.

B. GEORGE HERIOT BURSARIES FOR WOMEN (ARTS).

(*Subjects as for First Year Open Bursaries.*)

1. Janie Middleton, Ladies' College, Queen Street.
2. Mary S. Miller, Ladies' College, George Square.
3. Margaret T. Spears, Ladies' College, Queen Street.
4. Muriel R. M'Kie, Ladies' College, Queen Street.
5. Janet M. Murray, Ayr Academy.
6. Peggy A. Alexander, Ladies' College, George Square.
7. Elizabeth Cowe, Ladies' College, George Square.
8. Mary L. Stephen, Ayr Academy.
9. Annie C. Hutcheson, Perth Academy. / Flora O'Riordan, Ladies' College, George Square.
10. Elizabeth J. Ross, Perth Academy.
11. Carrie Spence, Kirkwall Burgh School.
12. Catherine A. Nicolson, Ladies' College, George Square.
13. Marjory Wilson, Craigmillar Park College.
14. Margaret A. Herford, St George's Classes.

C. GEORGE HERIOT BURSARIES FOR WOMEN (MEDICINE).

(*Subjects of Examination*—The Preliminary Examination for Arts or Science.)

Isabel M'Keand, Ladies' College, Queen Street.

D.—RENTON BURSARY.

(*Subjects of Examination*—English and Mathematics.)

Thomas Nicol. | D. J. Boyd.

D. W. Durie.

E.—MACKINNON BURSARY.

(*Subjects of Examination*—As for Preferential Bursaries, with Gaelic in addition.)

John M'Dougall. | J. D. M. Black.

George Philip.

I.—KELLAND PRIZE.

(*Subject of Examination*—Geometry.)

T. S. Lindsay.

II.—SECOND YEAR BURSARIES.

(*Subjects of Examination*—Latin, Greek, and Mathematics.)

J. B. Jamieson. | W. D. R. Prentice.

III.—THIRD YEAR BURSARIES.

(*Subjects of Examination*—Classics, Mathematics, and Logic with Psychology.)

J. Y. Bell. | J. W. Meldrum.

GRADUATES IN ARTS.

HIGHER DEGREES.

1897.

Doctor of Letters (D.Litt.).

Alexander Douglas Thomson, M.A. (Edin.). *Thesis*—"Euripides and the Attic Orators: A Comparison."

1897.

Doctor of Philosophy (D.Phil.).

John Davidson, M.A. (Edin.). *Thesis*—"Wage Theories and Wage Factors."

Robert Latta, M.A. (Edin.). *Thesis*—"An Introduction to the Philosophy of Leibnitz, with Translation of Selections from the Works of Leibnitz."

Hugh Ross Mackintosh, M.A. (Edin.). *Thesis*—"The Ritschlian Doctrine of Theoretical and Religious Knowledge."

Patrick Johnston Maclagan, M.A. (Edin.). *Thesis*—"The Philosophical Theory of Lao-tsze, with a Translation of the Tao-teh King, and Critical Commentary."

Sponsio Academica for M.A.

Nos qui Nomina subsignamus Magisterii titulo jamjam donandi Spondemus nos in omni debitae gratitudinis officio erga Universitatem Academicam Edinburgensem ad extremum vitae halitum perseveraturos.

Degree of M.A. with Honours—1889-1898 *inclusively.*

The names of all Graduates in Arts with Honours previously to 1889 will be found in the List of Graduates of the University published in 1889.

The contractions Class., Phil., Math., Engl., Mod. Lang., and Nat. Sc., indicate the Departments or Groups of Classics, Mental Philosophy, Mathematics and Natural Philosophy, English, Modern Languages, and Natural Science, respectively; and the Italic Numerals, i., ii., and iii. indicate First, Second, and Third (*inst. in* 1892) *Class Honours respectively.*

1889.

Class. i., Patrick Duncan, Harry Angus Alexander Kennedy, Thomas Ross Mills, Jas. Cruickshank Smith, John Tennant.

Class. ii., Robert Alex. Falconer, Alexander Harris Hutt.

Phil. i., Charles Mackinnon Douglas, William George Smith.

Phil. ii., David Walton Vaughan.

Math. i., James Ireland Craig, William Andrew Knowles, Jas. Fairbairn M'Kean.

Nat. Sc., Alexander Bremner, John Brown Clark, David Davidson,

John Melvin Lowson, Robert Stewart M'Dougall, John Machray, John Hally Meikle, Harry Fisher Menzies, Alexander Gordon Wallace, John Young.

1890.

Class. i., John Maclennan, James Watt.

Class. ii., William Brereton Dennison, William Barron Stevenson.

Phil. i., Andrew Nisbet Bogle, Duncan Mackenzie, Thomas Dixon Rutherford, James Stewart.

Phil. ii., Henry Reynolds Brown, William Elmslie Wilkie Brown Dempster, Arthur Herbert Gray, Walter Hardie.

Math. i., Charles Tweedie.

Nat. Sc., James Adamson, William Lewis Martin, John Myles, Andrew Robertson Wilson.

1891.

Class. ii., John Adam Norrie, William Gibson Wedderspoon.

Phil. i., Henry Barker, John Davidson, Walter Charles Murray.

Phil. ii., Alexander Grieve, Wm. Allan Neilson, Alexander Joseph Pearse.

Math. i., John Forbes, Adam Mitchell Hunter, William Edward Philip, William Leslie Thomson, John Turner.

Nat. Sc., Robert Pollok, James Rodger Watson.

1892.

Class. ii., Peter Campbell, William Gracie, Hugh Ross Mackintosh.

Phil. i., Hugh Ross Mackintosh.

Phil. ii., Thomas Linton, William Joseph Pennell.

Math. i., James Mitchell.

Math. ii., Alexander Campbell Mackay.

Nat. Sc., John Smith Flett.

1893.

Class. i., Robert Gordon McKerron.

Class. ii., Walter Robertson Henderson, Hugh Lugton Jackson, Robert Montgomerie Samson.

Phil. i., Alexander Beith Macaulay, Hugh Pattison Macmillan, Lilias Maitland.

Phil. ii., William John Collier, Sydney Smith, William Finlay son Trotter.

Math. i., Neil Macmichael.

Math. ii., George Lowe Moffat, Frank Spence, Thomas Wilkie Wilson, James Wood.

Nat. Sc., Frank Spence, William White Taylor, William Watson.

1894.

Class. i., George Liddell, James Middleton Moore, Robt. Lindsay Ross.

Phil. i., James Black Baillie.

Math. i., Alexander George Burgess, John Watt Butters, Henry Herd, John Alexander Johnston.

Math. ii., Thomas Cleghorn Baillie.

Nat. Sc., John Watt Butters.

1895.

Class. i., Francis Dewar, William John Keith, Alexander Buchanan Macdonald, William Wallace M'Kechnie, Alfred Croom Paterson, William David Ross.

Class. ii., George Duncan Low, Peter M'Gregor, James MacKenna, Charles Cunningham Watson.

Phil. i., John Macaskill.

Phil. ii., James Bonnar Russell, Robert Whyte.
Math. i., John Forbes Cameron, Hugh Archibald Jamieson, James Alexander Macdonald, Thomas William Pickles.
Math. ii., Robert Candlish Melville Bell.
Engl. i., David Nichol Smith.

1896.

Class. i., Charles Samuel Edgar, Alexander Macgregor, Jessie Thomson Muir.
Class. ii., Marshall Newton Goold Gray, Tom Bell Maxwell Lamb, William Robb.
Math. and Nat. Phil. i., William Jeffrey, Malcolm Caird M'Alpin, Andrew Cameron Smith, Frank Guthrie Smith.
Math. and Nat. Phil. ii., John Smith Begg, Leopold Octavius Critchley.
Engl. i., George Douglas Shepherd.
Engl. ii., Emily Moir Milligan.
Engl. iii., Louisa Reid Boyd.

1897.

Class i., Sidney George Campbell, William Alexander Curtis, Arthur Berriedale Keith, Donald Allan Macnaughton, Thomas Stewart Macpherson, William Cuthbert Morton.
Class. ii., David William Inglis, Ethelwyn Lemon, William Mackenzie, George Robert Thomson Ross.
Class. iii., Marcus Dods.
Phil. i., Charles Macfie Campbell, Bruce M'Ewen, Frances Helen Melville, George Claus Rankin, George Robert Thomson Ross.
Phil. ii., Alfred George Hogg.
Math. and Nat. Phil. i., Richard Bell, Alexander Brown, James Chalmers Leighton.
Math. and Nat. Phil. ii., David Macrae Aitken, George Ednie, William David Proudfoot.
Engl. i., George Dundas Craig.
Hist. i., John M'Farlane.

1898.

Class. i., Victor Caldwell, William Dunbar, John Lees, Bernard Herrmann Richardson, James Stirling Ross.
Class. ii., Alexander Flint.
Class. iii., Rosa Gertrude Caroline Stoltz.
Phil. i., Archibald Scott Ballantyne, Alexander Darroch, John Adam Gray, David Hutchison Macgregor, Alexander Mair, Æneas Rose.

Mathematics and Natural Philosophy.

Math. and Nat. Phil. i., Ernest Masson Anderson, B.Sc., James Mitchell Low, John Brotchie Meiklejohn, Hugh Mitchell, James Thomas Young, B.Sc.
Math. and Nat. Phil. ii., Henry Alfred Braine, Patrick Sinclair Hardie, James Lornie.
Math. and Nat. Phil. iii., Donald Banks, William Thomson.
Eng. ii., Charles Henry Moore, William Porter.

Mod. Lang.

Mod. Lang. i., George Brown, James Melville.
Mod. Lang. ii., Jessie Annie M'Kechnie.
Hist. ii., Bessie Brown Bird, Alexander Barrie Robb.

ORDINARY DEGREE, 1897-98.

31st July 1897.

Robert Bowie.

William Graham Brown.

23rd October.

Robert Duff.
James Adam Gillam.
Edward Rowland Jones.
Annie Macdonald.
William Charles Angus Ross.
John Slight.
James William Hamilton Smith.
Peter Thomsen.
Robert Young.

13th April 1898.

Adam, Thomas Chalmers.
Ambrose, John.
Armit, David Richard.
Bell, John.
Bell, John.
Black, Alexander Forbes.
Borland, William Parlane.
Bryce, William.
Burnett, Robert.
Burnett, Thomas John.
Campbell, John Mylne.
Campbell, Peter.
Cattanach, Peter Lorimer.
Colville, James.
Craig, Robert Sterling.
Croal, Sara Gordon.
Eggeling, William.
Enever-Todd, Robert Stanley.
Forsyth, Walter Alexander.
Fraser, Alexander Archibald.
Fraser, George Alexander.
Fraser, James.
Grant, Alexander.
Hamilton, William.
Henderson, George.
Hogge, James Myles.
Imrie, Janet Bell.
Lee, Andrew.
Lennie, Alice Brown.
Macgregor, James Kerr.
Mackie, Archibald William.
Malloch, James Jamieson.
Maxwell, James Reid.
Menzies, Euphemia Wardlaw.
Methven, John.
Millar, Robert Greig Buchanan.
Miller, Hugh Crichton.
Minto, Frederick Charles.
Mowat, William Alexander.
Murdie, William.
Ogilvie, Isabella Murray.
Oldham, Michael.
Parker, Henry Hunter.
Pattison, John.
Peat, Robert Jardine.
Pryde, James.
Robertson, George Cook Irvine.
Ross, Andrew Beaconsfield.
Smith, Agnes M'Gregor.
Smith, Mary Gardner.
Smith, Thomas.
Soutar, George Ferguson.
Steedman, Alexander.
Stevenson, Edward Rea Ireland.
Stewart, Thomas William.
Sturrock, William.
Thomson, Jeanie Craig.
Watson, Margaret Christina.
White, David Bishop.
Whitton, Robert Young.
Wood, Charles Arthur.

SCHOOLMASTER'S DIPLOMA, 1897-98.

The Diploma was conferred on the following Candidates:—

A.—DIPLOMA FOR TEACHERS IN SECONDARY SCHOOLS.

13th April 1898.

Bessie Brown Bird, M.A., Edin.
Jessie Annie M'Kechnie, M.A., Edin.
George Robert Thomson Ross, M.A., Edin.

B.—GENERAL DIPLOMA.

31st July 1897.

Jessie Ann Robertson, M.A. (Edin.).

13th April 1898.

William Parlane Borland, M.A., Edin.
Annie MacDonald, M.A., Edin.
Agnes M'Gregor Smith, M.A., Edin.
Mary Gardner Smith, M.A., Edin.

LITERATE IN ARTS, 1897-98.

James Barnetson.

Bursaries, Prizes, Scholarships, and Fellowships in Arts.[1]

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I.—BURSARIES.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patrons.
			At present				
I.	16—	George Heriot.	£480 0 0	16	3	£30 0 0	Governors of George Heriot's Trust.
		Do. Bursaries for Women.	720 0 0	24	3	30 0 0	Do.
		Do. Hospital School University Bursaries.	450 0 0	15	3	30 0 0	Do.
		Do. High School Univer. Bursaries.	270 0 0	9	3	30 0 0	Do.
II.	1619	Archibald Johnston, Merchant in Edin.	13 2 2	1	4	13 2 2	Earl of Haddington.
III.	1622 1764 1766	John Trotter of Mortonhall, and Rev. J. Penman of Bothkennar.	12 18 1	1	4	12 18 1	Trotter of Mortonhall and Gilmour of Craigmillar, alternately.
IV.	1626 1629 1640 1726	Hugh Wight, David M'Call, and David Christie.	13 1 1	1	4	13 1 1	Town Council.
V.	1639	Dr Robt. Johnstone of London.	31 10 0	2	4	15 15 0	Hope Johnstone of Annandale.
VI.	1639	Do. do.	25 0 0	2	4	12 10 0	Town Council.
VII.	1642 1653 1696	Weir, Jenkins, Hepburn, and Lightbody.	11 7 9	1	4	11 7 9	Town Council, 1st and 2nd Presentations, and Campbell of Aberuchill, 3rd Presentation.
VIII.	1644 1673	Jas. Dalgliesh. and Jn. M'Morran.	13 7 8	1	4	13 17 8	Town Council.
IX.	1678	John Penman, Bailie and Merchant, Edinburgh.	14 15 0	1	4	14 15 0	Society for the Benefit of the Sons of the Clergy.
X.	1678	Hector Ford of Branxton.	33 6 6	3	4	11 2 2	Town Council.
XI.	1687	Sir Andrew Ramsay of Abbotshall.	11 2 2	1	4	11 2 2	Do. and Ministers of Edinburgh.
XII.	1698	Ad. Chrystie, Under Clerk of Session.	18 0 0	1	4	18 0 0	Faculty of Advocates.
XIII.	1702	Thos. Bryson, Bailie and Merchant in Dunbar.	10 0 0	2	4	5 0 0	Ministers of the Presbytery of Dunbar.
XIV.	1703 1725	Pringle and Wardrop.	17 3 10	1	4	17 3 10	Pringle of Torwoodlee and J. C. Wardrop, W.S., alternately.

[1] See Conditions, page 153.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patrons.
XV.	1714	Rev. Robert Brown, of Protestant Consistory at Zamose.	£25 0 0	2	4	{ 15 0 0 { 10 0 0	Town Council.
XVI.	1723	Alexander Mitchell and James Shortt.	22 0 0	1	4	£22 0 8	Livingston Learmonth of Parkhall and his heirs; Earl of Morton and his heirs.
XVII.	1734	Laurence Dundas, Professor of Humanity in the University of Edin.	About 42 0 0	2	4	About 21 0 0	Jas. Dundas of Dundas, Robt. Dundas of Arniston, and Dundas of Carronhall, by turns.
XVIII.	1768	Thos. Fraser, Clerk in the office of City Clerk, Edinburgh.	43 10 0	2	7	21 15 0	The Provost, Dean of Guild, and Treasurer of Edin.
XIX.	1784	William Hume, Eastbarns, Dunbar.	16 0 0	2	4	8 0 0	Ministers of the Presbytery of Dunbar.
XX.	1784	Rev. Jas. Millar and Spouse.	24 0 0	1	4	24 0 0	Kirk-Session of Kippen.
XXI.	1809	Dr Donald Grant, London.	About 180 0 0	4	4	About 45 0 0	Earl of Seafield, and James Mackenzie, W.S., as Dr Grant's Trus.; whom failing, Sen. Acad.
XXII.	1810	Rev. James Stuart.	36 0 0	2	3	18 0 0	Senatus Academicus.
XXIII.	1837	James Menzies.	200 0 0	4	4	45 0 0	Sir R. Menzies, Bart., & Ministers of Dull, Weem, & Fortingall.
XXIV.	1837	Peter Dow, Esq. of Balmyle.	20 0 0	2	4	10 0 0	P. S. Keir, Esq. of Kindrogan, J. Small, Esq. of Dirnanean, and W. A. Keir, Esq., Yr. of Kindrogan.
XXV.	1838	Robert Blair, D.D., Barton St Andrews, Norfolk.	9 12 6	1	3	9 12 6	Principal, and Profs. of Latin, Greek, Mathematics, Logic & Metaphysics, and Moral Philosophy.
XXVI.	1846	John Jamieson, Esq., Edinburgh.	About 26 0 0	1	4	About 26 0 0	Principal, & two Profs. of the University.
XXVII.	1846	G. P. Bidder, C.E.	43 12 0	1	4	43 12 0	Senatus Academicus.
XXVIII.	1852	Wm. Lennie, Esq.	48 0 0	4	4	12 0 0	Town Council.
XXIX.	1853	John Bruce, Esq., Trinity Crescent, Edinburgh.	160 0 0	{ 1 { 4	4 4	40 0 0 30 0 0	} Do.
XXX.	1858	M'Diarmid Trustees.	10 0 0	1	3	10 0 0	Senatus Academicus.
XXXI.	1860	Wm. Patrick, Esq., of Roughwood.	About 150 0 0	3	4	About 50 0 0	Principal and Professors in Arts.
XXXII.	1858	Edin. Ayrshire Club.	60 0 0	2	2	30 0 0	Edin. Ayrshire Club.
XXXIII.	1863	Peeblesshire Society.	20 0 0	1	4	20 0 0	Peeblesshire Society.
XXXIV.	1864	Edin. Caithness Association.	10 0 0	1	4	10 0 0	Edin. Caithness Association.

[1] See Conditions, page 155.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars	For Years.	Annual Allowance to each Bursar.	Patrons.
XXXV.	1864	A. H. Rhind of Sibster.	Interest of £500 0 0	1	4	About £20 0 0	Edin. Caithness Asso.
XXXVI.	1865	Mrs Margt. Tyndall Bruce, of Falkland.	165 0 0	3	3	35 0 0	Senatus.
				3	3	20 0 0	
XXXVII.	1865	Horsliehill Scott.	66 12 8	2	2	33 6 4	Do.
XXXVIII.	1867	Miss Hannah Harrison, of Lasswade.	33 5 0	1	2	33 4 0	Do.
XXXIX.	1867	Rev. John Spence.	About 200 0 0	5	2	1st Year 30 0 0 2nd Year 40 0 0 3rd Year. 50 0 0	Governors of the Spence Bursary Trust.
				1	1		
XL.	1869 1872	Edin. Border Counties Association.	50 0 0	1 1	4 4	30 0 0 20 0 0	Edinburgh Border Counties Assoc.
XLI.	1869	Argyllshire, Bute, and Western Isles Asso.	12 0 0	1	4	About 12 0 0	Argyllshire Association.
XLII.	1870	Stewart of Ardvorlich.	16 0 0	1	4	16 0 0	Proprietor of the Estate of Ardvorlich.
XLIII.	1870	David Cowan.	About 35 0 0	1	2	About 30 0 0	Directors of Ayr Academy.
				1	1	20 0 0	
XLIV.	1871	J. Robertson Sibbald.	About 150 0 0	5	3	30 0 0	Tr. of Dr J. R. Sibbald.
XLV.	1872	Angus Club.	25 0 0	1	4	25 0 0	Angus Club.
XLVI.	1873	Earl of Zetland.	About 40 0 0	1	3	About 40 0 0	Trustees of Earl of Zetland.
XLVII.	1873	The Grierson Trus.	104 0 0	4	4	20 0 0	Senatus Acad.
				1	4	26 0 0	
XLVIII.	1874	Upper Ward of Lanarkshire.	20 0 0	2	4	20 0 0	Upper Ward Assoc.
XLIX.	1874	Johnstone of Hartshope.	16 5 0	1	4	16 5 0	Senatus Acad.
L.	1874	James Lambert.	About 40 0 0	1	4	About 40 0 0	Senatus Acad.
LI.	1875	Robert Marshall.	32 10 0	1	4	32 10 0	Senatus Acad.
LII.	1876	J. Fothringham of Heathpool.	39 13 0	2	4	19 16 6	Senatus Acad.
LIII.	1877	Earl of Zetland.	About 40 0 0	1	3	40 0 0	Trustees.
LIV	1878	Edin. E. Lothian Asso.	20 0 0	1	3	20 0 0	Association.
LV.	1878	Jas. Gillan, Forres.	63 0 0	3		21 0 0	Mr Gillan's Trustees.
LVI.	1878	Dr Andrew Thomson.	100 0 0	4	4	25 0 0	Trus. of Dr Thomson.
LVII.	1880	Rev. John Patterson.	16 2 4	1	2	About 16 2 4	Senatus Academicus.
LVIII	1881	Thomas Carlyle.	About £160	8	4	20 0 0	Senatus Acad.
LIX	1883	Subscribers to Mackinnon Testimonial	£60 18 6	3	3	20 6 2	Senatus Acad.
LX.	1882	James Whitelaw.	71 2 6	3	3	23 14 2	Senatus Acad.
LXI.	1883	William Renton, Edinburgh.	20 0 0	1	1	29 0 0	Profs. Chrystal, Tait, Crum Brown, and Nicholson.
LXII.	1883	Isabella Macdougall.	About 120 0 0	4	3	About 30 0 0	Trustees.

[1] See Conditions, page 157.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patrons.
LXIII.	1886	Rob. P. Newton of Castlandhill.	£86 19 4	4	2	£21 14 10	Senatus Academicus.
LXIV.	1886	Pet. C. Mann of Nairn and Durham.	80 0 0 About	3	3	26 13 4 About	Senatus Academicus.
LXV.	1886	Richd. Allan, Feuar, Kelso.	90 0 0	3	3	30 0 0	Trustees of R. Allan.
LXVI.	1887	Mrs Kidd of Aigbarth, near Liverpool.	34 0 0 About	1	4	34 0 0 About	Senatus Academicus.
LXVII.	1887	Charles Jardine of Thorlieshope.	151 10 0 About	4	4	37 17 6 About	Senatus Academicus.
LXVIII.	1887	Charles Howatson, Esq. of Dornel and Glenbuck.	27 0 0 About	1	3	27 0 0 About	Trustees.
LXIX.	1888	Mrs Harriet E. Morrison.	27 0 0 About	1	4	27 0 0 About	Senatus Academicus.
LXX.	1889	Daniel Maclaurin, London.	62 10 0 About	1	4	62 10 0	Town Council.
LXXI.	1889	James Simson, Edinburgh.	150 0 0	6	3	25 0 0	Presbytery of Edinburgh.
LXXII.	1890	George Cousin.	28 0 0	1	3	21 0 0	Senatus Academicus.
LXXIII.	1890	Rev. Thomas Maule.	85 10 0	4	6	21 7 6	Principal, and Profs. of Humanity & Greek.
LXXIV.	1891	Donald Fraser, M.D., London, and Endowment Association.	51 0 0	1	1	51 0 0	Senatus Academicus.
LXXV.	1897	Misses Baxter of Bâlgavies.	60 0 0 About	2	3	30 0 0 About	Senatus Academicus.
LXXVI		James Stewart, Duart.	35 0 0	1	3	35 0 0	Kirk-Sessions Callander and Trossachs.

CONDITIONS OF FOUNDATIONS AND NAMES OF BURSARS.

I. These *Heriot Bursaries* are for Students unconnected with the Hospital School, entering upon a regular Curriculum in Arts or Science with a view to graduation. (For remodelled scheme, see CALENDAR, 1887-88, p. 498.) *Bursars*—1897, J. G. Sutherland, M. F. Simpson, T. J. C. Gifford, E. Shearer, A. MacRae, Marshall Craig.

Heriot Bursaries for Women. These Bursaries are for Women Matriculating for the first time at the University with a view to graduation in Arts or Science, and cannot be held along with any other Bursary or Scholarship. *Bursars*—1897, Janie Middleton, Mary S. Miller, Margt. T. Spears, Muriel R. M'Kie, Janet M. Murray, Peggy A. Alexander, Eliz. Cowe, Mary L. Stephen, Annie C. Hutchison, Flora O'Riordan.

Heriot's Hospital School University Bursaries. These are awarded by competitive examination among Scholars attending the Hospital School, and may be held at any University approved by the Governors. *Bursars*—1897, William Lilico, George Johnston Clerk Ranken, John Wishart.

Heriot High School University Bursaries. These are awarded by competitive examination among Scholars attending the High School, Edinburgh, and may

[1] See Conditions, page 161.

be held at any University approved by the Governors. *Bursars*—1897, F. J. Gordon, J. L. Brander, William Pryde.

II. *A. Johnston Bursary.*—Each Bursar is entitled to hold this Bursary for four years, subject to the conditions that he shall pass such examination as may be required of Presentation Bursars, and shall proceed through the Curriculum in Arts, and pass the Examinations for M.A. appropriate to each year. No one is permitted to hold the Bursary along with any other Bursary in the University. The Bursar must attend the Classes in the Arts Curriculum.

III. *Trotter and Penman Bursary.* This Bursary is held under the same conditions as No. II.

IV. *Wight, M'Call, and Christie Bursary.* This Bursary is held under the same conditions as No. II.

V. and VI. *R. Johnstone Bursaries.*—By Ordinance No. 82, the holder of each of the four Robert Johnstone Bursaries is entitled to hold his Bursary for four years, subject to the condition that he shall pass the Preliminary Examination or its equivalent, and shall proceed through the Curriculum in Arts, and regularly pass the Examinations required of Students proceeding to the degree of M.A. No person is allowed to hold any of these Bursaries along with any other Bursary in the University. Agents, Messrs Hope, Todd & Kirk, W.S., 119 Princes Street, Edinburgh, agents for the Patron.

VII. *Weir, Jenkins, Hepburn, and Lightbody Bursary.*—For a Student in Arts, who must pass the Preliminary Examination or its equivalent, and follow the Curriculum for the Degree of M.A.

VIII. The *Dalgliesh and Macmorran* Bursar must pass the Preliminary Examination or its equivalent, and proceed through the Curriculum in Arts in the University, and regularly pass the Examinations required of Students proceeding to the Degree of M.A.

IX. *Penman Bursary.*—The Bursar must attend the Classes in the Arts Curriculum. *Bursar*—Alexander F. Jack.

X. Each *Ford* Bursar is entitled to hold his Bursary for four years, subject to the condition that he shall pass the Preliminary Examination or its equivalent, and shall proceed through the Curriculum in Arts, and regularly pass the Examinations required of Students proceeding to the Degree of M.A. No person is permitted to hold any of the Bursaries along with any other Bursary in the University.

XI. The *Sir A. Ramsay* Bursar holds his Bursary for four years, subject to the condition that he shall pass the Preliminary Examination or its equivalent, and shall proceed through the Curriculum in Arts, and regularly pass the Examinations required of Students proceeding to the degree of M.A. No person is permitted to hold either of the Bursaries along with any other Bursary, Fellowship, or Scholarship of any Scottish University.

XII. The *Chrystie Bursary* is usually held for four years. Candidates must pass the Preliminary Examination or its equivalent. The Bursar is taken bound to attend "the usual classes," and must produce yearly to the Faculty certificates from the respective Professors of his due attendance, and the diligent prosecution of his studies. Candidates are referred for information to the Clerk to the Faculty of Advocates, Advocates' Library.

XIII. The *Bryson* Bursars must pass the Preliminary Examination or its equivalent, and are first to enter the Humanity class: afterwards to pass through the rest of the classes in Arts until their Laureation; at which time, if judged by the ministers of the Presbytery of Dunbar fit for the study of Theology, they may continue for two years in Theology.

XIV. The *Pringle and Wardrop Bursary.*—The Bursar must pass the Preliminary Examination or its equivalent, and attend the classes in the Curriculum in Arts for M.A.

XV. The *Brown Bursaries* are payable to Bursars who must pass the Preliminary Examination or its equivalent, and attend the regular course of study in Arts for M.A.

XVI. The *Mitchell and Shortt Bursary* is payable to a Student who must pass the Preliminary Examination or its equivalent, during the regular course in the Faculty of Arts.

XVII. *Dundas Bursaries.*—By Ordinance No. 78 of the Universities' Commissioners, each person presented to either of the Dundas Bursaries is entitled to hold the same for four years as a Student of Arts, subject to the conditions that he shall pass the Preliminary Eamination or its equivalent, and proceed through the Curriculum in Arts, and shall regularly pass the Examinations required for M.A. These Bursaries cannot be held with any other Bursary in the University. Apply to G. Auldjo Jamieson, Esq., 24 St Andrew Square, Edinburgh.

XVIII. The *Fraser Bursaries.*—Bursars must pass the Preliminary Examination or its equivalent, and proceed through the curriculum till they finish their course and take the Degree in the Faculty of Arts. The Bursaries are held for three years thereafter; the Bursars making their election whether to follow Divinity, Law, or Medicine. Two Classes at least must be attended each Winter Session. Candidates should apply to the City Clerk, Council Chambers, Edinburgh.

XIX. The conditions of the *Hume Mortification* correspond with those of Bryson's, No. XIII., and the presentations and payments are made as in that case.

XX. *Millar Bursary.*—To be held by a Student intended for the Ministry in the Church of Scotland, during his Curriculum in the Faculty of Arts. Bursar must pass the Preliminary Examination or its equivalent.

XXI. The *Grant Mortification.* Tenable in the Faculties of Arts, Science, Divinity, Law, or Medicine. Applications for information may be made to Messrs Mackenzie, Innes, & Logan, W.S., 23 Queen Street, Edinburgh. *Bursars*—1894, Alexander Grant, Donald Grant.

XXII. *Stuart Bursaries.*—Open to Students entering upon the second year of their course for graduation in Arts or in Pure Science. The said Bursaries shall be tenable for three years, provided that if the holders graduate at the end of their second year of tenure they shall only retain their Bursaries during the third year of tenure if they engage in a course of study approved by the Senatus Academicus in subjects included in the Curriculum for Degrees in Arts or in Pure Science. *Bursars*—1895, D. H. Macgregor; 1896, J. M. Dunnett.

XXIII. *Menzies.*—These Bursaries, four in number, were founded in 1837 by

James Menzies, Esq., Glasgow. They are of the annual value of £45 each, but vary in amount at discretion of the patrons, and tenable for four years, in any one of the Universities of St Andrews, Glasgow, or Edinburgh. Preference first to the relations of the Founder; next, to the name of Menzies; failing whom, to persons born on the estate of Sir Robert Menzies, Bart., within the parishes of Dull, Weem, and Fortingall; failing whom, any Student who shall be found best qualified may be appointed. Candidates must pass the Preliminary Examination.

XXIV. *The Dow Bursaries* are tenable for four years, "at any of the Scottish Universities, St Andrews in preference." Apply to the Patrons.

XXV. The *Blair* Bursar must pass the Preliminary Examination, attend the Classes, and pass the Examinations necessary for the Degree of M.A. *Bursar*—1895, A. A. Fraser.

XXVI. The *Jamieson Bursary* is for the benefit of the sons of schoolmasters, farmers, mechanics, and labourers, born and residing within any one of the following parishes—viz., Crawfordjohn, Crawford, united parishes of Lamington and Wandell, united parishes of Wiston and Roberton, Culter and Biggar. The Bursar must pass the Preliminary Examination or its equivalent. He may attend Classes in any of the Faculties. *Bursar*—

XXVII. Called the "*Jardine Bursary*," being founded by Mr Bidder, C.E., as a memorial of the munificence of Sir Henry Jardine to him, to which he owed the advantage of his education at the University of Edinburgh. Candidates must be natives of Scotland. The Bursar must pass the Preliminary Examination or its equivalent, and attend the Classes, and pass the Examinations necessary for the Degree in Arts. *Bursar*—1896, Alexander Thomson.

XXVIII. *Lennie Bursaries.*—Bursars must pass the Preliminary Examination or its equivalent, and attend the Classes in the Arts Curriculum. Candidates should apply to the City Clerk, Council Chambers, Edinburgh.

XXIX. *Bruce Bursaries.*—Prior to the commencement of each Winter Session, five Students are presented yearly, the most distinguished of the five receiving the £40 Bursary. The Bursars must be in regular attendance on the Classes necessary for the Degree of Master of Arts. Candidates announce their names at the Council Chambers to the City Clerk.

XXX. The *M'Diarmid Bursary* is a memorial of the late John M'Diarmid, Esq., Editor of the *Dumfries and Galloway Courier*. Candidates must be natives of the county of Dumfries or the stewartry of Kirkcudbright. The Bursar must pass the Preliminary Examination and attend the Classes and Examinations necessary for the Degree of Master of Arts. Applications regarding the Bursary to be made to "H. Gordon, Esq., Dumfries." *Bursar*—

XXXI. The *Patrick Bursaries* are for the assistance of those who have completed a course of education at any of the public schools or academies in the county of Ayr, where a course of Classical Study is pursued. Their value fluctuates, being the dividend on £3000 Glasgow and South-Western Railway Stock. The Bursars must attend the Classes and pass the Examinations necessary for the Degree in Arts, in the order required by the Faculty. *See* p. 197 of CALENDAR for 1865-66. *Bursars*—1894, James M. Dunnett, John Millar. 1896—G. O. Dunnett, James Girdwood, William Legat.

XXXII. *Ayrshire Club Bursaries.*—Restricted to natives of Ayrshire, men or women, and tenable for two years. Apply to the Secretary of the Club, Andrew White, Esq., W.S., 23 Castle Street, before 15th September.

XXXIII. *Peeblesshire Bursary.*—Open to Candidates of either sex who intend to pursue the Curriculum in Arts, Science or Medicine. Apply to the Secretary of the Society, P. H. Cosens, Esq., W.S., 17 Duke Street, Edinburgh. *Bursar*—1896, James Robert Lindsay.

XXXIV. and XXXV. *Caithness and Rhind Bursaries.*—Bursars must attend Classes in Arts Curriculum. Apply to Secretary of the Association.

XXXVI. *Bruce of Grangehill and Falkland's Bursaries.*—Three of these Bursaries, of the annual value of £35, are awarded after competitive examination to Students of the *second* year in their course of study for a Degree in Arts; and three others, of the annual value of £20, to Students entering the *first* year of the Arts Curriculum. *Bursars*—First year, 1896, H. J. Anderson; 1897, G. T. Ford; second year, 1896, J. S. Ross; 1897, J. B. Jamieson.

XXXVII. *Horsliehill-Scott Bursaries.*—Annual value £33, 6s. 2d., under deduction of £6, 6s. for Examiners' fees from first year's payments. Open to Students in the *third* year of their course for a Degree in Arts, and tenable for two years. The examination is in Classics, Mathematics, and Logic and Metaphysics. Deed of Foundation, at p. 208 of CALENDAR for 1866-67. *Bursars*—1896, Alexander Flint; 1897, J. Y. Bell.

XXXVIII. The *Harrison Bursary* is of the annual value of £33, 5s., under deduction of £6, 6s. of Examiners' fees from first year's payments. Open to Students in the *third* year of their course in the Faculty of Arts, with a view to a degree, and tenable for two years. It is to be awarded to the competitor who shall show the greatest proficiency in Classics, Mathematics, and Logic and Metaphysics. *See* Deed of Endowment, p. 231 of CALENDAR for 1867-68. *Bursar*—1897, J. W. Meldrum.

XXXIX. *Spence Bursaries.*—By the regulations of the Governors, two Bursaries, each of the annual value of £30 for the first year and £40 for second year of tenure, are open to Students of either sex who, after passing the preliminary examination, or such other examination as may from time to time be accepted by the Joint Board of Examiners as equivalent thereto, have attended one Winter Session or its equivalent in the Faculty of Arts in the University of Edinburgh, and have attended at least two classes qualifying for Graduation, and who intend to complete the course of study for the degree of Master of Arts at the University. The Governors may award to any Bursar, if they are satisfied of his or her merit, a continuation Bursary of an annual value of £50, tenable for one year, on condition that the Bursar shall for that year attend such a curriculum of study in any of the Faculties as the Governors may approve. Subjects of Examination are Latin, Greek, and Mathematics. Candidates apply to Mr Henry A. Pattullo, Solicitor, 1 Bank Street, Dundee, Factor to the Trust, for particulars.

XL. *Border Counties and Sir Walter Scott Bursaries.*—These Bursaries are open to competition by Scholars (women as well as men) who have attended any school in either of the Counties of Roxburgh, Berwick, Selkirk, or Borough of Berwick-on-Tweed, for two complete sessions immediately prior to the time of their examination for the Bursaries. The Bursars must attend the classes neces-

sary for a Degree in Arts. Application to be made to Mr T. Usher, Sheriff Court House, Edinburgh.

XLI. *Argyllshire Bursary.* — Candidates must be natives of Argyllshire, Bute, or Western Islands. The holder must attend the classes necessary for a Degree in Arts. Application to be made to John Maclachlan, Esq., W.S., 48 Castle Street, Edinburgh.

XLII. *Ardvorlich Bursary.* —Open to Students of Arts, natives of the parishes of Comrie, Balquhidder, Callander, or Killin, failing whom, to natives of Perthshire, and failing such, to the best qualified candidate. The holder must pass the Preliminary Examination or its equivalent, and must attend Arts or Science classes. Application to be made to the Clerk of Senatus. For remodelled Foundation, see CALENDAR 1887-88, p. 501 ; for original deed, see p. 275 of CALENDAR for 1870-71. *Bursar—*

XLIII. *Cowan Bursary.*—Candidates must be about to enter the Curriculum in Arts. Annual value for first two years £30, and £20 for third year, to be held alternately at Edinburgh and Glasgow Universities. Information will be afforded by J. G. M'Skimming, Esq., Ayr.

XLIV. *Sibbald Bursaries.*—The Bursaries are available to Students in the Faculties of Arts, Medicine, Law, or Divinity, and are open to Students entering the University who have not previously attended any University in the United Kingdom or elsewhere, *and who do not hold any other Bursary or Scholarship ;* but no objection to a Candidate that he has, during the previous Summer Session, attended any of the Classes in the University of Edinburgh required by the Faculties of Medicine or Law. *See* CALENDAR for 1888-89, pp. 171 and 177. Application to be made to Messrs Mackenzie, Innes, & Logan, W.S., 23 Queen Street, Edinburgh. *Bursars*—1897, A. R. Low, A. J. Sturrock.

XLV. *The Angus Club Bursary.*—Open to Forfarshire students entering the University for the first time. Application should be made to the Secretary of the Club, Mr William Whyte, S.S.C., 4 Albyn Place, Edinburgh.

XLVI. *Orkney and Zetland Bursary.*—Open to first year Students (male or female), natives, or children of parents who are natives of the County of Orkney and Zetland. It is tenable for three years. The Bursar must attend the Classes in the Curriculum in Arts, with a view to a Degree. Applications to be sent to Messrs Dundas & Wilson, C.S., 17 St Andrew Square, Edinburgh. The Deed of Foundation will be found in CALENDAR for 1873-74, p. 329. *Bursar—*

XLVII. *Grierson Bursaries.*—Four Bursaries of £20 each, and one of £24, awarded annually in November, under the patronage of the Senatus. They are restricted in the first place to natives of either of the parishes of Crawford or Leadhills, who must pass an examination, satisfactory to the Senatus, in Elementary Latin, English, and Arithmetic. In the event of more than one preferential Candidate, the examination is competitive among such candidates. If no preferential Candidates, the Bursaries are thrown open for competition to all Students then intending to enrol in the University for the First Session of the Curriculum in Arts, the subjects of examination being those prescribed for Bursars of the First Year. *See* Trust Disposition of Founder at p. 335 of CALENDAR for 1873-74, and p. 368 of the

CALENDAR for 1877-78. *Bursars*—1895, James Crerar, J. S. Ross; 1897, J. S. Kinghorn, F. H. T. Gray.

XLVIII. *Lanarkshire* (Upper Ward of) *Bursaries.*—Bursars must attend the Classes in the Arts Curriculum. Mr R. Brown, Secretary, 28 St Andrew Square. *Bursar*—

XLIX. *Johnstone of Harthope Bursary.* Natives of Moffat, Peebles, and Students of the name of Alexander or Johnstone preferred, if applications (with proof of birth) be made to Secretary of Senatus before 1st of September. The successful candidate must attend the Classes in the Faculty of Arts, and take the Degree of M.A. *See* Deed of Foundation, at p. 350 of CALENDAR for 1875-76. *Bursar*—

L. *Lambert Bursary.*—This Bursary cannot be instituted until after the death of an annuitant. *See* Deed of Foundation, at p. 342 of CALENDAR for 1875-76.

LI. *Marshall Bursary.*—Restricted in the first place to relatives of Founder, next to Students of the name of Marshall, and natives of West Lothian. *See* Deed of Foundation, at p. 347 of CALENDAR for 1876-77. *Bursar*—1896, J. M. Marshall.

LII. *Fothringham and Forrest Bursaries.* Relatives or namesakes of the Founder, then such as are of the name of Forrest, to be preferred. The successful candidate must attend the Classes in the Faculty of Arts, and take the Degree of M.A. *Bursar*—1897, Thomas Nicol.

LIII. *Earl of Zetland's Bursaries.*—These Bursaries are open to First Year Students in the Faculty of Arts, who are natives of the Islands or County of Orkney and Zetland, or children of parents, one or both of whom shall have been born in or connected for a long period of years with the said Islands or County. For Deed of Foundation of these Bursaries, *see* p. 373 of CALENDAR for 1877-78. Application to be made to Messrs Dundas & Wilson, C.S., 17 St Andrew Square, Edinburgh.

LIV. *Edinburgh East Lothian Association's Bursary.*—The Bursary may be competed for by any lad under the age of 18, who has been educated at any school in East Lothian, or who, having passed through all the standards or their equivalents at such schools, shall have afterwards attended for not more than three sessions any secondary school within or without the county. Application may be made to J. Purves, S.S.C., 65 Frederick Street, Edinburgh.

LV. *Gillan Bursaries.*—Founded in 1878 by James Gillan, draper, Forres. These Bursaries are for the support at the University, and at the New College, Edinburgh, of two young men connected with the parish of Forres, and one connected with Dyke, who have declared their intention to study for the ministry of the Free Church of Scotland. For particulars apply to Messrs R. & R. Urquhart, Solicitors, Forres.

LVI. *Thomson Bursaries.*—Candidates of the name of Thomson or Traquair, or natives of town or county of Dumfries or city of Edinburgh, preferred. *See* Deed of Foundation, p. 367 of CALENDAR, 1877-78, and Scheme of Allocation, p. 346 of CALENDAR, 1879-80. Applications to be made to Messrs Traquair, Dickson & Maclaren, W.S., 11 Hill Street. *Bursars*—1895, H. C. Liddell; 1897, R. W. Johnson.

LVII. *Patterson Bursary, in Anglo-Saxon, Grammar, and Literature.*—Open to Students in the second, third, or fourth year of their Matriculation who have attended the class of English Literature and the Honours Class in English Language, both in the University. The Examination will include Anglo-Saxon, Grammar, Translations of passages of Anglo-Saxon prose and verse, and the History of Anglo-Saxon Literature. *See* Deed of Foundation at p. 379 of CALENDAR for 1880-81. *Bursar*—1896, G. Dundas Craig.

LVIII. *John Welsh Bursaries*, founded by Thomas Carlyle in 1881, in memory of his Father-in-law, to whom the estate of Craigenputtock in Dumfriesshire, bequeathed by Mr Carlyle to the University of Edinburgh, formerly belonged. The Bursaries are paid from the rents of that estate, and are eight in number, of the value of about £20 each, tenable for four years. They are awarded, after competition, to Students entering the University, who have not studied in any other University. Four are to be given to the competitors most proficient in Mathematics, and four to those most proficient in Classics. They are not to be held with any other Bursary. *See* Deed of Foundation at p. 379 of CALENDAR for 1881-82. *Bursars*—(*Classical*)—(*Mathematical*)—1895, R. H. Macnair, Alexander Waddell.

LIX. *Mackinnon Bursaries.*—Three Bursaries about £20, 6s. 2d., tenable for three years, to encourage the study of the Mechanical Sciences. Each Bursary is open for competition to Students entering their First Session in the Faculty of Arts. Candidates must be natives of the counties of Argyll, Bute and Arran, Inverness, Ross or Sutherland, and must be able to speak the Gaelic language. The Examination is held at the annual competition for Bursaries at the beginning of each Session, with an additional examination by the Professor of Celtic; at least 10 per cent. of the total marks attainable being assigned to Gaelic. Each Bursar is bound to attend at least two classes in the Faculty of Arts during his tenure. and among these six classes, at least one class of Mathematics, one of Natural Philosophy, and the class of Engineering. The Bursaries cannot be held along with any other Bursary, Scholarship, or Fellowship in a Scottish University, or with any office yielding an annual income of £50 or upwards, and is tenable only during good behaviour and proficiency. *Bursars* — 1896, John M'Nab; 1897, John M'Dougall, J. D. M. Black.

LX. *Whitelaw Bursaries.* — In memory of James Whitelaw, Watchmaker. Three Bursaries, about £23, 14s. 2d. each, tenable for three years, open to Students about to enter, or who follow the Curriculum in Arts. Cannot be held along with any other Bursary, Scholarship, or Fellowship in a Scottish University, or with any office yielding £50 annually, or upwards. Examination in October annually. *Bursars*—1895, T. B. Copeland; 1896, Thomas Davidson; 1897, D. C. Davidson.

LXI. The *Renton Bursary*, founded by the Trustees of the late William Renton, 20 Royal Terrace, Edinburgh, is for a Student pursuing his studies in the classes of Natural Philosophy, Mathematics, Chemistry, and Political Economy, or such of them as he may consider proper, and who may require assistance. The Bursary is tenable for one year, and cannot be held by any

one under the age of sixteen or above twenty-one. *Bursar*—1897, D. J. Boyd.

LXII. The *Macdougall Bursaries* are open to Students of Edinburgh, Glasgow, and St Andrews Universities. Students attending the Gaelic Class to be preferred. The Bursaries cannot be held with any Bursary or appointment yielding upwards of £50 per annum. *See* Deed of Foundation at p. 435 of CALENDAR 1885-86. Application may be made to Mr W. C. Young, solicitor, Perth.

LXIII. *Newton Bursaries.*—Two are awarded annually, one to the most distinguished Student in the Junior Class of Natural Philosophy, and one in the Senior (Second) Class of Mathematics. The Bursaries are tenable for two years, and the Bursars must continue their studies in the higher branches of the subjects of their Bursaries, and at the end of the second year of tenure, either take Honours in Mathematics and Natural Philosophy, pass the 2nd B.Sc. Examination, or give other evidence of advanced study in Mathematics or Natural Philosophy. These Bursaries are not to be held with other Scholarships or Bursaries. *See* Deed of Foundation, p. 460 of CALENDAR, 1886-87. *Bursars* (*Math.*)—1897, *J. M. Dunnet;* 1898, *D. E. Cameron.* (*Nat. Phil.*)—1897, *S. F. Stewart;* 1898, William Gentle.

LXIV. *Mann Bursaries.*—(1.) Candidates must be children of residents in the town of Nairn, *i.e.*, one or both parents must have resided within the municipal boundaries for at least twelve months at any period prior to the competition. (2.) Applications must be lodged with the Clerk of Senatus at least three weeks before the Annual Bursary Examination of the University, along with evidence of compliance with Rule I. (3.) One will be awarded annually to the candidate, matriculating for the first time in this University, who obtains the highest marks at the Entrance Bursary Examination in English, Latin, Greek, and Mathematics, provided the Examiners be satisfied with the standard he has attained. (4.) Each will be tenable for three years, value about £25 per annum. (5.) Failing candidates of the first year, the vacant Bursary will be awarded as a second year Bursary to the candidate who obtains the highest marks in the Bursary Examination for the second year; and, failing candidates of the first and second years, it will similarly be awarded as a third year Bursary. When awarded under this Rule it is tenable for one year only. (6.) Failing candidates qualified under Rule III. or Rule V., the Senatus may continue one of the Bursaries to its holder for a fourth year, provided he propose to continue his studies for a fourth year in some special subject. (7.) Each Bursar must be *bona fide* engaged in studying for a Degree in Arts or in Science, and must produce evidence at the end of each Winter Session that he has attended at least two classes in the Faculty of Arts, or in a Department of Science, and has made reasonable progress in his studies. (8.) Any breach of these regulations, or conduct unworthy of a scholar and a gentleman, will be punished by forfeiture of the Bursary. *See* Deed of Foundation, p. 497 of CALENDAR 1887-88, and Regulations at p. 544 of CALENDAR for 1890-91. *Bursars*—1896, Hugh Winchester; 1897, W. G. Alexander.

LXV. *Allan Bursaries.*—These Bursaries are available to Students attending classes in any of the Faculties of Arts, Medicine, or Law, in the Univer-

sity of Edinburgh, or to Students attending the classes in said University necessary for Degrees in Science; and are tenable for three years or for such part of that period as the Bursar shall remain a Student at the University. In nominating Candidates for presentation to the Bursaries, care will be given to prefer such as have been born in the parish of Kelso, provided they are qualified by their previous education for entering the University. Apply to P. Stormonth Darling, Esq., writer, Kelso.

LXVI. *James Fairbairn Bursary*, founded by Mrs Kidd of Palmyra, Aigbarth, near Liverpool, in memory of James Fairbairn, late Governor of Heriot's Hospital, is open to competition to first year Students, and is tenable for four years. The Bursar is required to attend the Classes necessary for Graduation in Arts, and to take the Degree at the end of the Course. The Bursary cannot be held along with any other Bursary or Scholarship. *See* Deed of Foundation, p. 501 of CALENDAR, 1887-88. *Bursar*—1897, D. G. Robertson.

LXVII. *Jardine of Thorlieshope Bursaries.*—Natives of the rural districts of Roxburghshire and Dumfriesshire (villages and towns of the population of 2000 and upwards being excluded), who have attended the Public or Board Schools in said counties, to be preferred. In the event of there being no first year Candidates, the Bursaries will be thrown open to Candidates of the second, third, or fourth year in succession, but will be tenable for one year only. The Bursars are required to attend the Classes necessary for Graduation in Arts, and to take the Degree at the end of the Course. The Bursaries cannot be held along with any other Bursary or Scholarship. See Deed of Foundation, p. 497 of CALENDAR, 1887-88. *Bursars*—1895, Walter Davidson; 1896, J. P. M'Gowan; 1897, A. B. Lorimer, R. Nichol.

LXVIII. *The Glenbuck Bursary* may be held by a Student in any of the four Scotch Universities—preferably that of Glasgow or of Edinburgh. Candidates only are eligible who have resided not less than five years in the Parish of Muirkirk, and who have received part of their education at any school therein, or alternatively and postponed thereto, those who have been resident in any one of the Parishes of South Ayrshire for not less than five years, and who have received part of their education in any school in the same Parish. For further particulars, apply to R. A. Leslie, Inspector, Muirkirk.

LXIX. *MacKenzie* (*Stornoway*) *Bursary.*—Candidates of the name of MacKenzie have a preference. The Examination is in English, Latin, Greek, and Mathematics, as for First Session Open Bursaries, and the Bursary will be awarded to the Candidate who stands highest, provided he has passed the Preliminary Examination in at least two subjects, one of which must be Latin, Greek, or Mathematics on the Higher Standard. Failing a preferential Candidate, the Bursary will be thrown open to competition as a first year Bursary in Arts. The Bursar is required to attend the Classes necessary for Graduation in Arts, and to take the Degree at the end of the course. For Regulations, *see* CALENDAR for 1895-96, p. 748. *Bursar*—1896, William Mackenzie.

LXX. This Bursary, tenable for four years, is by the will of the founder to be called the "Maclaurin Bursary," and is restricted to Students of the Founder's

name of Maclaurin (or in Gaelic orthography "Maclalhrin"). The holder must pass the Preliminary Examination. It may be held in any of the Faculties. *See* Deed of Foundation, p. 544 of CALENDAR for 1890-91.

LXXI. Six Bursaries, each of the annual value of £25, and tenable for three years in the Faculty of Arts. They are open to Students who, having passed the Preliminary Examination, are entering on the first year of the Course in Arts, and are studying for the Ministry of the Church of Scotland. For conditions of tenure and subjects of examination, apply to the Rev. Dr Langwill, Currie, or to Rev. Dr Patrick, Greenside, Edinburgh. *Bursars*—1895, W. Murdie, G. H. Donald; 1896, D. H. Sawers, D. Heggie; 1897, *J. M. B. Duncan, W. P. Gillieson.*

LXXII. *Bailie Cousin's Bursary* is open for competition to Students entering the Faculty of Arts on a regular course for the Degree of M.A. The holder must regularly pass the departmental examinations appropriate to each year. The Bursary cannot be held along with any Fellowship, Scholarship, or Bursary of any Scottish University, or with any situation or appointment yielding an annual income of £30 or upwards. For Deed of Foundation *see* CALENDAR 1891-92, page 536. *Bursar*—1897, H. Nelson.

LXXIII. *Maule Bursaries.*—These Bursaries are for the education of poor and deserving Students. They may be held by Students prosecuting their studies in any of the Faculties. The Examination is the same as for University Open Bursaries. *See* Excerpt from Trust Deed, p. 543 of CALENDAR for 1891-92, and Deed of Foundation, in CALENDAR for 1894-95. *Bursars*—1894, David Robertson (six years), Donald J. Boyd (five years); 1897, J. B. Duncan.

LXXIV. *The Donald Fraser Bursary* is awarded for high merit in the University Class of Natural Philosophy, combined with proficiency in Laboratory Work. The Bursar is required to give assistance in the University Physical Laboratory, and to engage in research there. The Bursary cannot be held along with any other Fellowship, Scholarship, or Bursary in any Scottish University. *See* Deed of Foundation, p. 545 of CALENDAR for 1891-92. *Bursar*—1898, *A. Milne.*

LXXV. These Bursaries are open both to men and women who have been educated in the High School of Dundee for at least one year immediately preceding the competition. The subjects of Examination, and the values attached to each subject, are the same as for the Open Bursaries in Arts, with the omission of Italian, and the addition of Chemistry (full marks, 50), as a subject of Examination. Candidates may select not more than five subjects, and the successful candidates may study for the Degrees of M.A., B.Sc., B.L., LL.B., or M.B., Ch.B.

The successful candidates must have passed the Preliminary Examination in Arts or Science, or its equivalent. For Regulations, *see* page 429 of CALENDAR for 1897-98. *Bursar*—1897, John M. Newton.

LXXVI. Tenable by a native of Parishes of Callander or Trossachs studying in any Scottish University with a view to taking the Degree of M.A. Applications to be made to R. Fulton, Esq., Schoolhouse, Callander, with certificate of birth, before 1st September.

II.—PRIZES.

I.—THE LORD RECTOR'S PRIZE.

The Lord Rectors since 1879, during their respective tenures of office, have offered a Prize of Twenty-five Guineas annually, for the best Essay on a Historical Subject.

1897. *A. J. Campbell.*

II.—EDINBURGH UNIVERSITY CLUB (OF LONDON) TRIENNIAL PRIZE.

A Prize of Twenty Guineas, open triennially, for competition in any of the Faculties by Graduates of not more than two years' standing, is offered by the Edinburgh University Club of London, for the best Essay on a subject prescribed by the Deans of the Faculties in the following rotation (viz., Arts, Divinity, Law, Medicine, and Science), subject to the approval of the Senatus. The Prize will be open in 1897.

1897. Not awarded.

III.—BRUCE OF GRANGEHILL AND FALKLAND'S PRIZE IN THE CLASSES OF LOGIC AND METAPHYSICS.

This Prize of £20 (with a supplementary Prize of £10 for the Junior Division of the Class) is awarded to the most distinguished student in this class, "on such conditions and competition as the Professor may direct, and on his decision," for excellence in the study of Logic and Metaphysics. It was founded in 1865, by Mrs Tyndall Bruce of Grangehill and Falkland, in commemoration of John Bruce, Professor of Logic and Metaphysics in the University, 1774-1786.

1898. *D. H. Macgregor, M.A.*

IV.—GRAY PRIZES.

The Gray Prize Essay Fund was instituted in 1851, in terms of the Will of Simon Gray, Esq., of Mornington Crescent, London. The Trustees offer annually for competition, two prizes of £20 for the first, and £10 for the second best Essay on a subject to be intimated annually in the CALENDAR under Prizes open for the year. No information beyond that which is given under Prizes open in 1898-99 will be given. Rev. A. J. B. Paterson, M.A., Duns, Secretary to the Trustees.

1897. 1st Prize, *Charles Gordon Mackay.*
2nd Prize, *John Purves.*
3rd Prize, *J. Myles Hogge.*

V.—SCOTT AND DUNBAR PRIZE.

This Prize, of the value of about £20, was founded in 1872 by the Rev. Hew Scott, D.D., of Anstruther Wester, for encouraging the

study of the Greek Language in the University of Edinburgh. It is awarded annually to "the most deserving and learned student in the Greek Classes," after such Examination as may be directed by the Principal and the Professors of Divinity, Greek, and Humanity. *See* Deed of Foundation at p. 332 of CALENDAR, 1873-74.

1898. *James Crerar.*

VI.—THE COUSIN PRIZE.

This Prize, founded in connection with the Class of Fine Art by the late David Cousin, Esq., is of the annual value of about £14, 14s., and is awarded at the close of each session for proficiency in Class Essays set from time to time by the Professor. *See* Excerpt from Mr Cousin's will in CALENDAR, 1880-81, p. 380.

1898. *Hans F. Eggeling.*

VII.—KELLAND MEMORIAL PRIZE.

The Committee for promoting a Memorial to the late Professor Kelland has handed over to the University the sum of £147, 10s., for the purpose of founding a Prize to be called the "Kelland Memorial Prize," to be awarded annually to the most distinguished Student in Pure Geometry in the Junior Mathematics Class. The value of the Prize is about £4, 12s.

1897. *T. S. Lindsay.*

III.—SCHOLARSHIPS.

I.—PITT CLUB CLASSICAL SCHOLARSHIP.

The Pitt Club Scholarship of the annual value of £58, 10s., tenable for four years. By ordinance No. 17 of the Scottish Universities' Commissioners of 1858 it is open for competition to all who have passed regularly through the Course in Arts in the University, and have been admitted to the Degree of M.A. in Edinburgh, at any time within four years before the competition takes place. The subjects embraced in the examination are CLASSICS and ENGLISH LITERATURE. The next competition may take place in April 1901.

1897. *A. Croom Paterson, M.A.*

II.—MACKENZIE CLASSICAL SCHOLARSHIP.

This Scholarship was founded in 1862, by James Mackenzie, Esq., W.S., and is of the annual value of £106, 8s., tenable for four years. By ordinance No. 90 of the Scottish Universities' Commissioners of 1858, it is open for competition to all Graduates in Arts in the University of Edinburgh of not more than three years' standing at the time of the competition. Candidates are examined in CLASSICAL LITERATURE and in ENGLISH LITERATURE, and the Examination is conducted by three or more Examiners selected by the Senatus from

their own body. It cannot be held along with any other Scholarship, Fellowship, or Bursary, of any Scottish University. The Examinations include—1. Translations from Latin and Greek authors; 2. Composition in Latin and Greek Prose; 3. Latin and Greek Literature, and History; 4. English Essay-Writing; 5. History of English Literature. The next competition may take place in April 1901.

1897. *William Wallace M'Kechnie, M.A.*

III.—SIR DAVID BAXTER MATHEMATICAL SCHOLARSHIP.

This Scholarship, founded by Sir David Baxter, Bart., of Kilmaron, is of the annual value of £63, 13s., and is tenable for four years. By the terms of the Deed of Foundation (given in the CALENDAR for 1864-65, p. 171) it is awarded for proficiency in the department of Mathematics, particularly in that branch of it which includes mechanical and physical science. Competitors must be Graduates in Arts of the University, of not more than four years' standing at the time of the competition, who have taken Honours in the department of Mathematics. The next competition may take place in April 1900.

1896. *Malcolm C. M'Alpin, M.A.*

IV.—SIR DAVID BAXTER PHILOSOPHICAL SCHOLARSHIP.

This Scholarship, also founded by Sir David Baxter, Bart., of Kilmaron, is of the annual value of £63, 13s., and is tenable for four years. By the terms of the Deed of Foundation (given in the CALENDAR for 1864-65, p. 171), it is awarded for proficiency in the Department of Mental Philosophy. Competitors must be Graduates in Arts of the University, of not more than four years' standing at the time of the competition, who have taken Honours in the department of Mental Philosophy. The subjects of examination are Logic, Metaphysics, and Moral Philosophy. The next competition may take place in April 1899.

1897. *G. R. T. Ross* (Residue).

V.-VII.—JOHN EDWARD BAXTER SCHOLARSHIPS.

These Scholarships were founded in 1876, and are three in number, each of the annual value of about £83, 17s. 6d., and tenable for three years. One is in the Department of Classical Literature, another in Mental Philosophy, and the third in Mathematics and Natural Philosophy. They are open for competition to all Masters of Arts of the University of not more than three years' standing at the time of the competition. The Scholarships in *Mathematics* and in *Classics* may be open in April 1899, and that in Mental Philosophy may be open in April 1900. *See* Deed of Foundation at p. 361 of CALENDAR for 1877-78.

1897. *John Macaskill, M.A. (Ph.).*

VIII.—DRUMMOND MATHEMATICAL SCHOLARSHIP.

This Scholarship was founded in 1865 by Miss Elizabeth Drummond, in memory of her brother, Captain Drummond, R.E., Under Secretary for Ireland. It is of the annual value of £92, 7s. 6d., and is tenable for three years. By the Deed of Foundation (given at p. 198 of CALENDAR for 1865-66), it is open to Graduates in Arts of not more than three years' standing, who have graduated with Honours in the Department of Mathematics. It cannot be held with any other Bursary or Scholarship, and the holder is recommended to travel for the purpose of inspecting, in this and other countries, remarkable engineering and architectural structures, to extend his knowledge of the practical application of Mathematical principles; and, if required by the Senatus Academicus, to deliver reports on the principal structures examined by him, and the Mathematical principles exemplified thereby; which reports the Senatus may cause to be publicly read in the University or elsewhere in Edinburgh. The next competition may take place in April 1900.

1897. *John Alexander Johnston, M.A.*
Prox. access., M. C. M'Alpine, M.A., and J. F. Cameron, M.A.

IX.—BRUCE OF GRANGEHILL AND FALKLAND'S CLASSICAL SCHOLARSHIP.

This Scholarship, founded in 1865 by Mrs Tyndall Bruce of Falkland, is of the annual value of £100, and is tenable for three years, during two of which the studies of the Scholar must be prosecuted in the University of Edinburgh, but in the third year they may be prosecuted in an English or Foreign University. By the terms of the Deed of Foundation (given at p. 205 of the CALENDAR for 1866-67), this and the two following Scholarships held by Students who have passed their Examinations for the Degree of Master of Arts with Honours, have hitherto been conferred upon the most distinguished in that one of the Honours Departments which is appropriated for each year. The Scholarship cannot be conferred upon any one whose age exceeds twenty-three years, and it cannot be held with any other Scholarship or Fellowship of a Scottish University, or with any situation yielding an income of £100 per annum. In the event of the Scholarship becoming vacant during the period of tenure, through resignation or otherwise, of the Scholar, then the sum falling in shall be bestowed by the Senatus for the remaining period of tenure on a Student attending the Divinity Classes who shall be reported by the Faculty of Theology to be a meritorious Student and deserving of the Scholarship. The next award may be made in April 1899.

1896. *Marshall N. G. Gray, M.A.*

X.—BRUCE OF GRANGEHILL AND FALKLAND'S SCHOLARSHIP IN MENTAL PHILOSOPHY.

This Scholarship, founded in 1865 by Mrs Tyndall Bruce of Falkland, is of the annual value of £100, and is tenable for the same period, and under the same conditions as the preceding. The subjects of examination are Logic and Psychology, Metaphysics, Moral Philosophy, and History of Philosophy. The next award may be made in April 1901.

1898. *J. Adam Gray, M.A.*

XI.—BRUCE OF GRANGEHILL AND FALKLAND'S MATHEMATICAL SCHOLARSHIP.

This Scholarship, founded in 1865 by Mrs Tyndall Bruce of Falkland, is of the annual value of £100, and is tenable for the same period, and under the same conditions as the preceding. The subjects of examination are Mathematics and Natural Philosophy. The next award may be made in April 1899.

1896. *Andrew C. Smith, M.A.*

XII.—GRAY SCHOLARSHIP.

This Scholarship, founded by Mr Gray of Baad Park in 1864, is of the annual value of £86, 2s. 6d., and tenable for two years. It is awarded for distinction in one of the Honours groups of subjects for the Degree of Master of Arts, or in one of the groups of subjects for the Final Examination for the Degree of Bachelor of Science, or in the Historical and Philosophical subjects of the examination for the Degree of Bachelor of Laws, or to Students in the Faculty of Divinity for distinction in the Final Examination for the Degree of Bachelor of Divinity. It has been resolved that the Scholarship shall be offered in rotation in the Faculties of Arts, Science, Law, and Divinity. When it falls to the Faculty of Arts it will be offered in rotation in the order of the groups of Honours subjects in the Arts regulations, and when it falls to the Faculty of Science, it will be offered in one of the groups of the Second Science Examination. When not awarded in the Faculty in which it is offered, it will then be offered to the other Faculties in rotation. The holder of the Scholarship is required, as a condition of tenure, to satisfy the Senatus Academicus that he is pursuing special higher studies, or that he is engaged in original research, either in the University of Edinburgh or in another University approved by the University Court, and he must also satisfy the Senatus Academicus of the importance of the work he proposes to undertake, and of his qualifications for such work. The Scholarship will be awarded in 1899 in the Faculty of Science.

1897. *Sidney George Campbell, M.A.*

1898. *John Lees*, for one year.

XIII.—GILCHRIST SCHOLARSHIPS.

These Scholarships were founded in 1865 by the Trustees of the late Dr Gilchrist; they are three in number, each of the annual value of

£100, and are open to natives of India who have passed competitive examinations at the Presidential Colleges of India. They are attached to the Medical, Law, and Literary Classes in the University.

XIV.-XV.—FETTES EXHIBITIONS.

These Exhibitions are each of the annual value of £60, and are tenable for four years. They are open annually for competition, one among the Foundationers alone, and the other among the Foundationers and such other pupils as have attended Fettes College regularly for not less than five years.

XVI.-XVII.—RHIND SCHOLARSHIPS.

These Scholarships were, in accordance with the will of the late A. H. Rhind, Esq., of Sibster, founded by his trustees on the reversion of his estate. They are two in number, one in the Department of Classical Literature, the other in that of Philosophy, are each of the annual value of £84, 2s. 6d., are tenable for not less than two years, or more than three years, and are open to Undergraduates and to Graduates of not more than three years' standing at the time of the competition. Competitors must have attended classes in this University for not less than three *winter* sessions or their equivalent, attendance being defined to mean that the competitors must present Certificates of having attended at least four classes during the period aforesaid, and of having duly performed the work of the classes. The successful Candidates may be required to undertake duties connected with the teaching of the University, or otherwise assist in some department of its operations. *See* Deed of Foundation at p. 323 of CALENDAR for 1874-75. The next competition for the Classical Scholarship may take place in April 1900, and the next competition for the Philosophical Scholarship may take place in April 1899.

1896. Alexander Darroch (Phil.).

1898. *William Rennie* (Cl.).—*Hon. ment.*, A. B. Leith, M.A., and W. D. Ross, M.A.

XVIII.—THE CHARLES MACLAREN SCHOLARSHIP.

This Scholarship, founded in 1871 by the Trustees of Mrs Maclaren, in memory of Charles Maclaren, Esq., the eminent geologist, is of the annual value of £112, and is tenable for three years. It is for the encouragement of the study of Mathematics and Natural Philosophy, and is open to all graduates in Arts of not more than three years' standing at the time of the Competition (and under 30 years of age) who shall have taken honours in Mathematics. The successful competitors are to spend a few months in travelling and in examining remarkable Engineering and Architectural Structures, and to report to the Senatus, which report the Senatus may cause to be publicly read in the University. The Deed of Foundation is given at p. 324 of CALENDAR for 1873-74. The next competition may be in April 1899.

1896. *James A. Macdonald, M.A., B.Sc.*

XIX.--NEIL ARNOTT SCHOLARSHIP FOR EXPERIMENTAL PHYSICS.

This Scholarship, value about £34, 7s. 6d., was founded in 1874, and is awarded annually to the most distinguished Student in the Physical Laboratory of the University.

The recipient must, during the ensuing Summer and Winter Sessions, assist the Professor of Natural Philosophy in the Laboratory. Failing a Student deemed by the Professor worthy of the Scholarship, it may be given to the Candidate for a Degree in Arts who has undergone the Examination in Natural Philosophy with most distinction. *See* Deed of Foundation, at p. 340 of CALENDAR for 1875-76.

1898. *John Tait.*

XX.-XXII.—FERGUSON SCHOLARSHIPS.

The examination of Candidates for Three of these Scholarships, each of the annual value of £80, and tenable for two years, will be held in Glasgow, on Tuesday, 27th September 1898, and following day. One of the Scholarships to be awarded for the greatest proficiency in Classics; one for the greatest proficiency in Mathematics, including Natural Philosophy; and one for the greatest proficiency in Mental Philosophy, including Logic, Psychology, Metaphysics, and Moral Philosophy.

The Competition is open to "all persons who have passed the Examinations required for the Degree of Master of Arts in one of the Universities of Scotland (whether taking the Degree at the same time or not) provided that at the time of the Competition not more than six years have elapsed since the date of their first matriculation after having passed the Preliminary Examination, and who have not already gained one of these Scholarships." Candidates are required to enter their names at the Office of the Ferguson Bequest Fund, 94 Bath Street, Glasgow, not later than 1st September 1898.

For further information apply at the Office of The Ferguson Bequest Fund, 94 Bath Street, Glasgow.

SCHOLARS, 1897.

Classical—Arthur Berriedale Keith, M.A. of Edinburgh University.
Mathematical—Malcolm Caird M'Alpin, M.A. do.
Philosophical—William Boyd, M.A. of Glasgow University.

XXIII.-XXXII. VANS DUNLOP SCHOLARSHIPS.

TEN VANS DUNLOP SCHOLARSHIPS, each of the annual value of £100, and tenable for three years, are, by the Deed of Foundation, appropriated to the following subjects:—1. English Literature and Poetry; 2. Classical Learning—Latin and Greek; 3. Commercial and Political Economy and Mercantile Law; 4. Logic and Metaphysics; 5. Natural Philosophy; 6. Mathematics; 7. Hebrew and Oriental

(Semitic) Languages; 8. History; 9. Moral Philosophy; 10. Sanskrit and Comparative Philology. In terms of the Trust-Disposition (which is given at p. 380 of CALENDAR for 1880-81), the Scholarships are given only for "distinguished proficiency" in the various subjects of competition, as determined by the Examiners and the Senatus Academicus.

The following are the General Regulations for the Examinations :—

Competitors for these Scholarships must have regularly attended at least one full Course or two Half-Courses in the University of Edinburgh during each Academic year in which they claim to have been Matriculated Students, and no Candidate is eligible who has discontinued attendance at the University of Edinburgh for more than one year. The years of Academic study count from the first year in which a Candidate has attended one of the classes qualifying for the degree of M.A.

Each Scholarship is tenable on condition that the Scholar submits annually to the University evidence that he is prosecuting his studies, or his professional work, in a manner satisfactory to the Senatus. The evidence may consist of—(1) Certificates of attendance on Lectures or Laboratories in this or some other University; or (2) Certificate of having acted as Assistant to a Professor in this or some other University; or (3) A written Report of work done by the Scholar during the year, together with a Thesis composed by himself on a subject connected with that work.

Not more than one of these Scholarships can be held by the same person, and Vans Dunlop Scholars cannot hold, along with their Scholarship, any other Fellowship, Scholarship, or Bursary in the University of Edinburgh.

Candidates for the Vans Dunlop Scholarships must, on entering for the Examinations, produce evidence that they have fulfilled the conditions of eligibility.

Candidates, if not already matriculated, are required to pay the Matriculation Fee for the year in which the competition takes place.

The names of Candidates highly distinguished in the Vans Dunlop Scholarship examinations may be published.

XXIII.—English Literature and Poetry.

Candidates are subjected to an Examination testing—(1.) Knowledge of the History of English Literature generally, and more particularly through a prescribed period; (2.) Acquaintance with certain books, chiefly of English Poetry, prescribed for special reading; (3.) Ability in English Composition, in the form of an Essay, written in the Examination Room, on some subject of literary criticism.

The Competition is open to all who have been Matriculated Students for not less than two years in this University, and not more than five years altogether in this or any other University; and who have given regular attendance in the Class of Rhetoric and English Literature, and in at least one other class on English Language or Literature. The next Competition may take place in March 1900.

The Professor of Rhetoric and English Literature, and an Examiner appointed by the Senatus, are the Examiners.

1897. *Donald T. Mackintosh.*
Prox. access., John Purves.

XXIV.—Classical Learning—Latin and Greek.

1. *Latin.*—The Examination will test :—
   (*a.*) Knowledge of Latin books and special subjects previously prescribed.
   (*b.*) Power of Latin Composition, and of translating from Latin authors not previously prescribed.
   (*c.*) Knowledge of Latin History and Literature.
2. *Greek.*—(*a.*) Knowledge of Greek books and special subjects previously prescribed.
   (*b.*) Power of Greek Composition, and of translating from Greek authors not prescribed.
   (*c.*) Knowledge of Greek History and Literature.

The Competition is open to all who have been Matriculated Students for not less than two years in this University, and not more than four years altogether in this or any other University, and who have given regular attendance in the Latin and Greek Classes necessary for graduation in Arts.

The next Competition will take place in October 1899.

The Professors of Humanity and Greek are the Examiners.

1896. *Arthur B. Keith.*

XXV.—Commercial and Political Economy and Mercantile Law.

The Examination will test knowledge of the subjects assigned in the Deed of Endowment to the Chair of Commercial and Political Economy and Mercantile Law. It will include the subjects embraced in the Lectures, and also in books prescribed from time to time by the Appropriate Board of Studies.

The Competition is open to all who have been Matriculated Students for not less than two years in this University, and not more than five years altogether in this or any other University, and who have regularly attended the Class of Commercial and Political Economy and Mercantile Law. The next Competition will take place in October 1898.

The Professor of Political Economy and an Examiner appointed by the Senatus are the Examiners.

1896. *John Row-Fogo.*

XXVI.—Logic and Metaphysics.

The Examination will test knowledge of (*a.*) Logic, (*b.*) Psychology, (*c.*) Metaphysics and the History of Philosophy. It will include the subjects embraced in the Lectures on each of these branches ; also prescribed Reading and Studies of special subjects.

INSERTION, PAGE 172.

VANS DUNLOP SCHOLARSHIPS IN CLASSICAL LEARNING, AND IN LOGIC AND METAPHYSICS.

The conditions of eligibility for these Scholarships will be more precisely defined when the prescribed Books are announced. It is probable that a student will cease to be eligible when he enters upon a fifth session, and that special matriculation for the purposes of the Examinations will not be admissible when four years of study have been completed.

The Competition is open to all who have been Matriculated Students for not less than two years in this University, and not more than four years altogether at this or any other University, and who have completed attendance at the Ordinary Class of Logic and Metaphysics. The next Competition will take place in October 1900.

The Professor of Logic and Metaphysics and the Professor of Moral Philosophy are the Examiners.

1897. *George Claus Rankin, M.A.*

XXVII.—Natural Philosophy.

The Examination will test the knowledge of the Candidates in Experimental Physics and Applied Mathematics.

The Competition is open to all who have been Matriculated Students for at least two years in this University, and not more than six years altogether in this or any other University, and who have attended at least two of the classes of Natural Philosophy, of which the Ordinary Course must be one. The next Examination will take place in March 1901.

The Professor of Natural Philosophy and an Examiner appointed by the Senatus are the Examiners.

1898. J. W. Low, M.A.

XXVIII.—Mathematics.

The Examination will test Candidates in pure mathematical subjects in the Honours Department for the Degree of Master of Arts, and in special subjects to be prescribed by the Examiners from time to time.

The Competition is open to all who have been Matriculated Students for at least two years in this University, and not more than six years altogether in this or any other University, and who have attended at least two of the Mathematical Classes, one of these being an Honours Class. The next Examination will take place in March 1901.

The Professor of Mathematics and an Examiner appointed by the Senatus are the Examiners.

1898. *Alexander Brown, M.A., B.Sc.*

XXIX.—Hebrew and Oriental (Semitic) Languages.

The Competition is open to all who have been Matriculated Students for not less than two years in this University, and not more than six years altogether in this or any other University; and who have attended at least two courses under the Professor of Hebrew and Oriental Languages.

Candidates will be examined in Hebrew, Syriac, and Arabic.

The Examiners are the Professor of Hebrew and Oriental Languages, and an Examiner appointed by the Senatus. The next Competition will take place at the end of Winter Session 1898-99.

1896. *Andrew Tweedie, M.A.*

XXX.—History.

The Competition is open to all who have been Matriculated Students for not less than two years in this University, and not more than five years altogether in this or any other University, and who have attended two or more courses of Professorial Lectures on History within the University.

The Examiners are the Professors of History, and such others as may be appointed by the Senatus from time to time. The next Competition will take place in October 1898.

1895. *C. S. Pennell.*
Prox. access., W. L. Mathieson.

XXXI.—Moral Philosophy.

The Competition is open to all who have been Matriculated Students for not less than two years in this University, and not more than four years altogether in this or any other University, and who have completed attendance at the Ordinary Class of Moral Philosophy.

The Professor of Moral Philosophy and the Professor of Logic and Metaphysics are the Examiners. The next Competition will take place in October 1898.

1895. *Alexander Mair.*

XXXII.—Sanskrit and Comparative Philology.

The Competition is open to all who have been Matriculated Students for not less than two years in this University, and not more than six years altogether in this or any other University, and who have attended at least two courses under the Professor of Sanskrit and Comparative Philology.

The Examiners are the Professor of Sanskrit and Comparative Philology, and another Examiner to be appointed by the Senatus. The next Competition will take place in March 1901.

1898. *S. G. Campbell.*

XXXIII.—SKIRVING SCHOLARSHIP FOR MORAL PHILOSOPHY.

This Scholarship is to be founded (after the death of an annuitant) in accordance with the Will of the late David Skirving, of No. 13 Westbourne Park, London. It will be of the annual value of about £50, and tenable for three years. *See* Deed of Foundation at p. 350 of Calendar for 1876-77.

XXXIV.—LANG SCHOLARSHIPS.

This is a Bequest by the late John Lang, Esq. of Warren Park, Ayrshire, with the object of founding four Scholarships, to be called the "Lang Scholarships," one in Natural Philosophy, one in Mathematics, one in Chemistry, and one in Botany. The capital sum will be payable on the death of the survivor of two liferenters.

XXXV.—MACKAY SMITH SCHOLARSHIP IN NATURAL PHILOSOPHY.

This Scholarship is of the annual value of £25, tenable for two years, and is open for competition to Students who have attended the Class of Natural Philosophy in this University. The successful candidate is required to attend the class of Natural Philosophy, or to prosecute the study of Natural Philosophy, during at least one year of his tenure of the Scholarship, in such way as the Senatus may direct or approve. The next award may be made in April 1901.

1898. *J. T. Young, M.A., B.Sc.*

XXXVI.—GEORGE SCOTT SCHOLARSHIP.

This Scholarship of about £32, 10s., is awarded annually (a previous holder not being ineligible for re-election), for the purpose of assisting Graduates in Arts of the University, of not more than three years' standing at the date of their election as Scholars, to travel for purposes of Study or Research. Applicants are required to state :— (1) The purpose for which they desire to use the Scholarship ; and (2) What other means they have towards the object in view. The award will be based—(1) On the importance of the work to be undertaken ; (2) the sufficiency of the means proposed to be applied to the work ; (3) the capability of the applicant for the work he proposes to undertake. The holders are required in all cases to satisfy the Senatus, by half-yearly reports, that they are carrying out the work undertaken ; and must present a final report or deliver a short Course of Lectures on their work when completed. The appointment is made by the Senatus on a report by the Faculty of Arts on the merits of the applicants. The first competition will be open to all Graduates in Arts qualified as above, but thereafter preference will be given to Candidates desiring to undertake work in the following groups of subjects, under the following scheme of rotation, provided always that a suitable Candidate presents himself :—(1) Classical Languages and Classical Archæology ; (2) Mental Philosophy ; (3) Mathematical and Physical Science ; (4) Semitic and Indian Languages ; (5) English and Modern Languages ; (6) History. See Deed of Foundation in CALENDAR for 1897-98, page 419.

1898. *T. B. M. Lamb, M.A.*

XXXVII.—MACPHERSON SCHOLARSHIP.

This Scholarship is awarded annually by the Senatus Academicus to a student who has, within six years of the date of the competition, completed the examination necessary for the degree of Master of Arts in the University of Edinburgh, with or without honours, who has included in his examination the subjects of Latin and Greek, and who has attended the class of Celtic and attained distinction in that subject. The scholar must study Celtic in a University or other place offering special facilities for Celtic study, subject to the approval of the Senatus Academicus. The Scholarship is of the annual value of about £84,

7s. 4d., and is tenable for one year. Before 15th February next after his appointment the scholar must submit to the Senatus Academicus a report of the work he has done, and of such further studies in Celtic as he proposes to prosecute, and the Senatus Academicus may, if they think fit, appoint him to the said Scholarship for a further period of one year. 1898. *George Henderson, M.A.*

XXXVIII.—THE NICHOL FOUNDATION.

The free yearly interest or income derivable from this foundation, amounting to about £50, shall be paid to a deserving Student, who shall regularly attend and devote himself as assistant in the Physical Laboratory, and who shall be bound to give his whole time in promoting the study of Natural Philosophy in connection therewith. It is tenable for one year, but on the recommendation of the Professor of Natural Philosophy it may be continued for a second year or longer. It cannot be held along with any Bursary or Scholarship. See Deed of Foundation in CALENDAR for 1897-98, page 419.

XXXIX., XL.—RITCHIE SCHOLARSHIPS FOR THE STUDY OF ORIENTAL LANGUAGES.

These Scholarships, founded by the late James Ritchie, formerly of Edinburgh, are for Candidates for the Civil Service of India, are each of the annual value of £40, and tenable for one year, but may be renewed for a second, and in special cases even for a third year. They are not tenable along with any other Scholarship or Bursary without the express approval of the Senatus. Candidates must have taken Second Class Honours (at least) in some department in the Faculty of Arts, or must have taken a degree in Science, or must hold First Class (Prize) Certificates in not less than *four different* subjects, and must be 18 years of age at the date of the Examination, and not more than 23 on 1st January following. Candidates may offer themselves for Sanskrit or Arabic. The subjects of examination will be—(1) An English Essay; (2) a translation, consisting of passages in Greek, Latin, French, and German; (3) a paper in Sanskrit or Arabic, if offered. Candidates on entering for the examination should submit (*a*) evidence of age, (*b*) a complete list of distinctions in class or honours examinations, inasmuch as it shall be in the discretion of the Faculty to take into account such previous distinctions as may be considered important; (*c*) must give intimation if offering Sanskrit or Arabic. The holders will be required (1) to declare their intention of competing for the Civil Service of India; (2) to study Sanskrit or Arabic, to attend a class in this University in one of these subjects, and to produce evidence of progress; (3) to produce evidence of general industry and progress in other subjects which he intends to offer in the Indian Civil Service Competition. See page 427 of CALENDAR for 1897-98.

1897. *Alex. Flint*; *T. B. Copeland.*

XLI.-XLII. Two Travelling Scholarships, one in French, the other in German, each of the value of £100 and tenable for one year. For particulars apply to David Lewis, Esq., Treasurer, George Heriot's Trust, 20 York Place, Edinburgh.

1898. *Jessie Annie M'Kechnie, M.A.*, French.

No award in German.

IV.—FELLOWSHIPS.

I.—GUTHRIE FELLOWSHIP IN CLASSICAL LITERATURE.

This fellowship, founded in 1866 by James Guthrie, Esq., London, is of the annual value of £86, 2s. 6d., and is tenable for four years. By the terms of the Deed of Foundation (given at p. 210 of the CALENDAR for 1866-67) it is for proficiency in Classical Literature, and is open to Graduates in Arts of the University who have taken their Degree since the last competition. Students who have passed all their examinations for a Degree since the last competition, but have deferred graduating, are also eligible. It cannot be held along with any other Fellowship or Scholarship in a Scottish University. The next Competition may take place in April 1899.

1895. *R. L. Ross, M.A.*

II.—SIR WILLIAM HAMILTON FELLOWSHIP IN MENTAL PHILOSOPHY.

This Fellowship, founded in 1866 by the Subscribers to the fund for a Memorial to the late Professor Sir William Hamilton, and by the Association for the better endowment of the University, is of the annual value of £85, 5s., and is tenable for three years. By the Deed of Foundation (given at p. 213 of CALENDAR for 1866-67), the Fellowship is open to all Graduates in Arts of the University of Edinburgh of not more than three years' standing at the time of the competition. It cannot be held along with any other Scholarship or Fellowship in a Scottish University. The subjects of examination are Logic, Metaphysics, Moral Philosophy, and the History of Philosophy. The next Competition may take place in April 1900.

1897. *James Black Baillie, M.A.*

III.—SHAW FELLOWSHIP IN MENTAL PHILOSOPHY.

This Fellowship, founded in 1867 by Contributors to a Memorial to Sir James Shaw, Bart., a native of Ayrshire, afterwards Lord Mayor of, and M.P. for, London, and by the Association for the better endowment of the University, for the encouragement of the study of Logic, Psychology, Metaphysics, Moral Philosophy, and the History of Philosophy, is awarded after competitive examination on these subjects. It is open to Graduates in Arts of any of the four Scottish

Universities, of not more than five years' standing at the time of the competition, is of the annual value of £139, 15s., and is tenable for five years. It cannot be held along with any other Fellowship, Scholarship, or Bursary in any Scottish University, and it is not open to the competition of any person who already holds a Fellowship in any English or Irish University, though the holder of the Shaw Fellowship will not be precluded from afterwards obtaining an English or Irish Fellowship. The holder is required during the fourth or fifth year of his tenure of the Fellowship to deliver in this University a Course of four Lectures on any of the subjects for the encouragement of the study of which the Fellowship was founded. The next Competition for the Fellowship may take place in April 1899. (Deed of Foundation, p. 237 of CALENDAR for 1868-69.)

1893. *Harry Barker, M.A.*

IV.-VII.—FELLOWS IN GEORGE HERIOT RESEARCH FELLOWSHIPS.[1]

1897. *W. A. Curtis, M.A.* (Classical Archæology).
Bruce M'Ewan, M.A. (Phil.).
E. Mettam, B.Sc. (Zool.).

WILLIAM DICKSON TRAVELLING FUND.

This Fund (the interest of which amounts to about £87 per annum) has been established for the purpose of assisting Graduates of any Faculty, of not more than Three Years' standing, to travel, for a shorter or longer period, for purposes of study or research. Grants from the Fund may be made to holders of Scholarships, Bursaries, &c. Applicants are required to state—"(1) The purpose for which the Applicants desire to get a Grant for travelling; (2) the total amount of expenditure thought necessary; (3) the other means they have towards meeting this expenditure; and (4) the amount of the Grant required from the Fund." The award of a grant to be based on—"(1) The importance of the work proposed to be undertaken; (2) the sufficiency of the means proposed to be applied to the work; (3) the capability of the Applicants for the work they respectively propose to undertake." "Holders of Grants in all cases to satisfy the Senatus by periodical reports that they are carrying out satisfactorily the work or investigation undertaken; and to present a final report, or to deliver a course of public University Lectures on their work when completed." Applications must be lodged with the *Secretary of Senatus* on or before 15th March annually. For Deed of Endowment, *see* p. 514 of CALENDAR, 1889-90.

1898.—A grant of £20 was made to each of the following:—*Campbell Brown, J. Brunton Blaikie*, G. Robertson, G. R. T. Ross, and J. A. Milroy.

[1] Regulations under revision. Apply to David Lewis, Esq., Treasurer, George Heriot's Trust, 20 York Place, Edinburgh.

EARL OF MORAY ENDOWMENT FOR THE PROMOTION OF ORIGINAL RESEARCH.

1. The available income is, in the first place, applied to the payment of the actual expenses of the prosecution of Original Research, present or contemplated, intended and likely to increase existing human knowledge, in any of its departments.

In such expenses would be included apparatus, special accommodation, specimens, chemical substances, books, journals, pamphlets, reproductions of manuscripts, &c., and actual maintenance and travelling expenses, in so far as they are shown to be necessary for the purposes of research, provided that it shall be permissible to furnish out of the income such specific additions to the Library as may be deemed necessary to stimulate and aid research.

All apparatus, specimens, books, journals, pamphlets, &c., and all unused chemical substances shall, at the termination of the research, be returned, or otherwise accounted for to the University.

2. Any surplus income after meeting the claims defined in 1, above, may be expended in (*a*) the printing and publishing of noteworthy results, including illustrations for papers containing such results; and (*b*) the payment, after careful consideration of all the circumstances, of such grants of money as may be necessary to enable applicants to enter upon or carry on the work of research, or to encourage the prosecution of research.

3. All graduates and other members of the University, "or other persons who have given satisfactory proof of general education and of fitness to engage in some special study or research," are entitled to apply for assistance.

4. In so far as the subject of the research admits, the investigation shall be conducted in the buildings of the University.

5. All applications for participation in the Fund must be submitted to the appropriate Faculty before 15th March and 1st July annually. See Regulations in CALENDAR for 1897-98, page 428.

1897-98. Grants of various amounts were made to the following:—J. W. Tullo, B.Sc.; John Beard, D.Sc.; Gregg Wilson, M.A., D.Sc.; Dr J. P. Prazak; A. Corsar Sturrock, M.A., M.B., C.M.; T. H. Milroy, M.A., M.D.; Dr John Malcolm; E. W. Carlier, M.D.; H. J. Stiles, M.B., C.M.; Harry Rainy, M.B., C.M.; and H. M. Cadell, B.Sc.; W. A. Curtis, M.A.; T. Wemyss Fulton, M.D.; J. Macmillan, M.A., M.B., D.Sc.; T. H. Milroy, M.D.; D. Berry Hart, M.D.; Leonard Dobbin, Ph.D.

THE SWINEY LECTURESHIP ON GEOLOGY.

This Lectureship is in the patronage of the Trustees of the British Museum, is of the annual value of £144, and is open to Graduates in any of the Faculties in this University who have obtained their Degrees after examination. For further particulars *see* under Faculty of Science, page 266.

FELLOWSHIPS, SCHOLARSHIPS, UNIVERSITY PRIZES, AND BURSARIES, OPEN DURING THE ACADEMIC YEAR 1898-99.

Candidates for the Fellowships and Scholarships open in Spring must give their names and addresses to the Clerk of Senatus, University, Edinburgh, *on or before* 15th March 1899.[1] The Examinations will begin in the *Examination Hall*, University, at 9 o'clock on *Monday*, 3*rd April* 1899, unless otherwise stated, and will be continued on following days, at the same hours.

Fellowships.[2]

1. *Shaw Fellowship in Mental Philosophy*, No. III., page 177.
2. *Guthrie Fellowship in Classical Literature*, No. I., page 177.
3-5. *Four George Heriot Fellowships for Research*,[3] Nos. IV.-VI., page 178.

Scholarships.[2 4]

6. *Bruce of Grangehill and Falkland's Classical Scholarship*, No. IX., page 167.
7. *John Edward Baxter Scholarship in Classics*, No. V., page 166.
8. *Rhind Philosophical Scholarship*, No. XVI., page 169.
9. *Sir David Baxter Philosophical Scholarship*, No. IV., page 166.
10. *Charles Maclaren Mathematical Scholarship*, No. XVIII., page 169.
11. *Bruce of Grangehill and Falkland's Mathematical Scholarship*, No. XI., page 168.
12. *John Edward Baxter Scholarship in Mathematics*, No. V., page 166.
13. *Vans Dunlop Scholarship in Hebrew and Oriental* (*Semitic*) *Languages*, No. XXIX., page 173. The competition will take place on *Tuesday*, 28*th March* 1899, and following days, beginning at 10 A.M. each day. Names to be entered *on or before* 15th March.

The following are the subjects of examination :—

(*a*) *Hebrew* (two papers).—Introduction to, and translation, criticism, and exegesis of Psalms, Books II. and III., Judges, and

[1] The Senatus reserve power to relax this Regulation in cases where they are satisfied that very special cause has been shown.

[2] For further information, and for information regarding other Fellowships, Scholarships, Bursaries, and Prizes, see above, where full information regarding the conditions and values, &c., are given. The values of the Fellowships, Scholarships, Bursaries, and Prizes are subject to variation consequent on the rise and fall of the rate of interest, &c.

[3] Regulations under revision, apply to Mr DAVID LEWIS, Treasurer, George Heriot's Trust, 20 York Place, Edinburgh.

[4] See date of entering for, above.

Zechariah. Hebrew Grammar and Composition. Some of the passages set will be unpointed.

(*b*) *Syriac* (one paper).—Rödiger's *Chrestomathia Syriaca*, extracts I.-IV., VIII., IX.; St Mark's Gospel (Peshittâ). Syriac Grammar and Composition.

(*c*) *Arabic* (one paper).—Bruennow's *Chrestomathy of Arabic Prose Pieces*, pp. 1-22, 44-55; *The Kor'ân*, third Sûra. Arabic Grammar and Composition.

14. *Vans Dunlop Scholarship in History*, No. XXX., page 174.

The Competition will take place on the third Monday, Tuesday, and Wednesday of October 1898, beginning at 10 A.M. each day. Names to be entered *on or before* 28th September.[1]

The Subjects of Examination are—

(1) History of Great Britain, 1485-1885, with special reference to colonial expansion and foreign policy in the eighteenth century.

(2) Constitutional History of (*a*) England, 1603-1784; (*b*) United States, 1763-1789; (*c*) France, 1830-1884.

(3) History of Scotland, 1603-1707, with special reference to the Union of 1707.

15. *Vans Dunlop Scholarship in Moral Philosophy*, No. XXXI., page 174.

The Examination will test knowledge of Philosophy, specially on its Ethical side. It will include the following works :—

(1) Sigwart's *Logic*, vol. i.; Ward's Article on *Psychology*; James' *Principles of Psychology* (Chapters on *Association*, *Emotion*, *and Will*). Kant's *Critique of Pure Reason*; (The Aesthetic and the Analytic). Plato's *Republic*, and Aristotle's *Nicom. Ethics*, Books i.-iv.; Butler's *Three Sermons on Human Nature*; Kant's *Groundwork of the Metaphysics of Ethics*; Mill's *Utilitarianism*; Sidgwick's *Methods of Ethics*; Hegel's *Philosophy of Right.*

The Examination will begin on Monday, 17th October 1898. Names to be entered on or before 28th September.[1]

16. *Vans Dunlop Scholarship in Commercial and Political Economy and Mercantile Law*, No. XXV., page 172. The Competition for this Scholarship will take place after the conclusion of the Graduation Examination in Law in October 1898. Names to be entered on or before 28th September.[1]

The following books are recommended :—Adam Smith's *Wealth of Nations*, Book V.; Ricardo's *Principles of Political Economy*, Chaps. VIII.-XVIII. inclusive, XXII., XXIII., XXV., XXVIII., XXIX.; Bastable's *Public Finance* (2nd edit.); Marshall's *Principles of Economics*, Vol. I. (3rd edit.); Sidgwick's *Elements of Politics;* Nicholson's *Principles of Political Economy*, Vol. I.; Nicholson's *Money and Monetary Problems* (4th edit.); Cunningham's *Growth of English Industry and Commerce;* Sir George Nicholl's *History of the English Poor Law* (new edition); Walker's *International Bi-Metallism.*

[1] See footnote 1, p. 180.

17. *Macpherson Scholarship*, of about £84, 7s. 4d., No. XXXVII., page 175.

The subjects of Examination are: (1) Fled Bricrend (Windisch's Irische Texte). (2) *Modern Gaelic:* Alexander Macdonald's Poems; Keating's Three Shafts of Death, Books I., II., and III. (Atkinson's Edition). (3) Translations into English from Old and Modern Gaelic Authors (Scottish *and* Irish) not prescribed. (4) Translation from English into Gaelic prose (Scottish *or* Irish). (5) A general knowledge of the History of Gaelic Literature, with more detailed knowledge of the Literature of the Scottish Highlands from 1000 to 1560 A.D. The Scholarship is awarded annually in April. Date to be afterwards announced. Names to be entered on or before 15th March.[1]

18. The *George Scott Scholarship*, No. XXXVI., page 175. The competition in 1899 will be in Mental Philosophy. Names to be entered on or before 15th March.[1]

19. *Neil Arnott Scholarship for Experimental Physics*, No. XIX., page 170.

20-22. *Three Ferguson Scholarships*, No. XX., page 170.

The William Dickson Travelling Fund. See page 178.

Earl of Moray Bequest for the Promotion of Original Research. See pages 178, 179.

Prizes.[2]

1. The *Lord Rector's Prize*, of twenty-five guineas, for the best Essay on "Colonisation; its purposes and results in Ancient and Modern Times." The Prize is open to Matriculated Students, and to Graduates of not more than two years' standing. Essays to be lodged with the Secretary of Senatus on or before 1st November, each Essay distinguished by a motto, and accompanied by a sealed envelope containing the name, address, and University standing of the Candidate.

2. *Scott and Dunbar Prize*, of about £20, will be awarded at the end of the Winter Session to the most deserving student in the Greek Classes.

3. *Bruce of Grangehill and Falkland's Prize*, of £20 (also £10 for prizes in the Junior Division of the Class), for the most distinguished Student in the Classes of Logic and Metaphysics, in Session 1898-99, to be awarded "on such competition as the Professor may direct."

4. *The Elizabeth Hamilton Prize* of £5 is offered to the best Woman Student in the Class of Logic.

5. *Neil Arnott Prize*, about £37, 10s., will be awarded in October for the *Medical Student* who passes with greatest distinction the Natural Philosophy examination for M.A.

6. *Cousin Prize in Fine Art*, of £14, 14s., will be awarded at the end of the Winter Session for excellence in the Class of Fine Art.

7, 8, 9. *The Trustees of Gray's Prize Essay Fund* offer three Prizes

[1] See footnote 1, p. 180.

[2] See footnote 2, p. 180.

of £20, £10, and £5 for the first, second, and third best Essays on "A Popular Exposition of the Teaching of Herbert Spencer." No further information will be given. Rev. A. J. B. Paterson, Duns, Secretary to the Trustees.

10, 11. *Two Newton Bursaries or Prizes*, of £21, 14s. 10d. each, tenable for two years, are awarded annually at the end of the Winter Session—one for proficiency in the Senior (Second) Class of Mathematics, and one in the Junior Class of Natural Philosophy.

12. *Edinburgh University Club of London Prize*, of twenty guineas, for the best Essay on the following subject: "Democracy in Literature." Open to Graduates of not more than two years' standing. Essays to be lodged with the Secretary of the Senatus on or before 1st November 1898, each bearing a motto, and accompanied by an envelope containing the name, address, and University standing of the Candidate.

13, 14. *The Kelland Memorial Prize*, of about £4, 12s., will be awarded by Examination in October. The paper will be on the Higher Geometry for the John Welsh Bursaries (set on Monday, 10th October, at 9 A.M.), with such additional questions as may be deemed necessary. Students who made a complete attendance on the Junior Mathematics Class for the first time in the previous Session (1897-98) will alone be eligible to compete for the prize in October next. Names to be given in not later than 16th September.

15-18. *Four Prizes* offered by the Franco-Scottish Society. For particulars, apply to A. A. Gordon, Esq., C.A., Hon. Sec., Franco-Scottish Society, 128A George Street, Edinburgh.

Bursaries.[1]

FOR STUDENTS ENTERING THEIR FIRST YEAR.

(*For Time-Table of Examinations, see pages* 119-121.)

Bursaries in Arts heretofore tenable for four years shall continue to be so tenable, provided that, if the holders graduate after three years, they shall only retain their Bursaries during a fourth year if they shall engage in study approved by the Senatus in subjects included in the Curriculum for Degrees in Arts or in Pure Science. Bursars in Arts, subject to the provision as to the fourth year of tenure, shall attend in each year at least two classes qualifying for Graduation in Arts, and shall duly perform the work of these classes: Provided (1) that, for the purposes of this section, the classes known as Middle Classes, so long as the same exist, may be attended in place of classes qualifying for Graduation; and (2) that it shall be in the power of the Senatus, with approval of the University Court, to permit such Bursars to attend classes qualifying for Graduation in Pure Science in place of classes qualifying for Graduation in Arts. [See Ordinance No. 57.]

The Bursaries are awarded on the results of the University Bursary

[1] See footnote 2, p. 180.

Examinations unless otherwise stated, and are tenable at the University of Edinburgh only. The Senatus reserve the power, under Section VIII. of Ordinance No. 57, to award not more than two First Year Bursaries in Arts in respect of exceptional distinction in any one branch of study.

For Bursary and other purposes, where the phrase "First-year's Student in Arts or Pure Science" is not by Deed of Foundation or otherwise defined, it shall mean "A Student in Arts or Pure Science who has not attended any class qualifying for Graduation in the said Faculties in any Scottish University."

The Subjects of Examination for the first year Bursaries, Nos. 1 to 26 inclusively in the following list, are the subjects prescribed for the Preliminary Examination, viz.:—English (full marks 100), Latin (100), Greek (100), Mathematics (100), French (50), German (50), Italian (50), and Dynamics (50), with additional papers in English, Latin, Greek, Mathematics, French, and German. Candidates may select not more than five subjects; provided always that no Candidate will be credited with marks in any subject in which he has not obtained twenty-five per cent. of the total marks assigned to that subject. Those who select Latin, Greek, or Mathematics must for the Bursary Competition take the papers on these subjects on the Higher Standard. The Examination Papers are indicated in the Time-Table of Examinations by the figure 1.

Candidates for Bursaries [Nos. 27 to 40 inclusively, and others] which are not awarded by open competition must present themselves for the Preliminary Examination in Arts prescribed by the Regulations for Degrees in Arts, Section III., and no Bursary shall, except as hereinafter provided, be awarded to any Candidate who shall not have passed the Preliminary Examination in Arts (or its equivalent). But it is in the power of the Senatus, with the approval of the University Court, to admit to a Bursary in Arts not awarded by open competition a Candidate who shall have passed in at least one subject of the Preliminary Examination, on the condition that he shall not retain the Bursary unless he shall have passed in all the subjects not later than the Second Preliminary Examination after the date of his admission as Bursar. When there are more than one eligible Candidate for a restricted or preferential Bursary [Nos. 27 to 40 inclusively, and others], the Subjects of Examination are:—English (as for Arts and Science Preliminary), Lower Latin, Lower Greek, and Lower Mathematics. Candidates for the MacKinnon Bursary will in addition get Translation of an easy passage from Gaelic to English, Translation of Sentences from English to Gaelic, and Elementary Questions in Gaelic Grammar. The papers are indicated in the Time-Table of Examinations by the figure 3.

Candidates for Bursaries Nos. 1 to 26 inclusively may obtain schedules at the Matriculation Office, University (Old) Buildings, which must be completed and returned to the Clerk of Senatus *before* 16th September.

The Senatus may relax this Regulation in cases where very special cause has been shown.

County Clubs, and others who prefer this examination, may, by arranging with the University Court, avail themselves of the University Examinations by giving written intimation of the names of their Candidates at the Matriculation Office not later than 16th September. Those who desire to have their Bursaries inserted in the CALENDAR, under the head of Bursaries open during the year, are requested to give intimation to the Editor of the CALENDAR before 1st January.

Candidates for Bursaries, unless also Candidates for the Preliminary Examination, pay no fee.

Town Council Bursaries.—Candidates for Bursaries in the gift of the Town Council, a number of which are vacant, are referred to the "*City Clerk, Council Chambers*, Edinburgh," to whom early application should be made. The Examination is the same as for the University Open Bursaries.

County Club and Private Bursaries.—Candidates for Bursaries instituted by various County Clubs are referred to the respective Secretaries of those Clubs. Information as to Private Bursaries may be obtained from the Patrons or from their Agents.

The names of the successful Candidates, and of others distinguished in the ordinary Bursary competition, will be published, in the order of merit, in the University Calendar, along with the names of the schools from which they come, provided that they have matriculated and enrolled in the necessary classes for 1898-99.

1. *One John Welsh Classical Bursary*, annual value £20, tenable for four years. Subjects of examination—Latin, Greek, English.

2. *One John Welsh Mathematical Bursary*, annual value £20, tenable for four years. Subjects of examination—Mathematics, especially pure Geometry. (Candidates are recommended to read Macdonald's *Higher Geometry*, Wilson's *Solid Geometry and Conic Sections*, and Casey's *Sequel to Euclid*, as partly indicating the scope of the examination in Geometry. What will be looked for is, not so much exhaustive knowledge of all the more intricate theorems, as a thorough knowledge of such as are more elementary and fundamental in their character, and ability to apply these in fairly straightforward exercises.)

3, 4. *Two Grierson Bursaries*, of £20 a-year, tenable for four years, if not awarded to Preferential Candidates. See Nos. 32 and 33.

5. *One Patrick Bursary*, of about £50 a-year, tenable for four years, for Candidates who have completed their School Education at Ayrshire schools or academies.

6, 7. *Two Whitelaw Bursaries*, each of about £23, 14s. 2d., tenable for three years.

8. *Tyndall Bruce Bursary*, of the annual value of £20 a-year, tenable for three years.

9. *One Sibbald Bursary*, of the annual value of £30, tenable

for three years. Apply to Messrs Mackenzie, Innes & Logan, W.S., 23 Queen Street, Edinburgh, before 15th September.

10. *Thomson Bursary*, £25 a-year, tenable for four years. Apply to Messrs Traquair, Dickson & Maclaren, W.S., 11 Hill Street, Edinburgh, before 15th September.

11. *One Mann Bursary*, of about £26, 13s. 4d. a-year, tenable for three years. Candidates must be sons of residents in the town of Nairn, *i.e.*, one or other of their parents must have resided within the municipal boundaries for at least twelve months at some period prior to the competition. Should there be no qualified Candidate of the first year for this Bursary, a notice will be posted at the College gate soon after the Bursary Competition. Other Preferential Candidates must then lodge their claims within one week after the notice appears on the Board.

12-17. *Six Jardine of Thorlieshope Bursaries*, each of the annual value of £35, two tenable for four years, one for three years, two for two years, and one for one year. Open only to natives of the rural districts of Roxburghshire and Dumfriesshire (villages and towns with a population of 2000 and upwards being excluded) who have attended the Public or Board Schools in said Counties. The Bursars are required to attend the classes necessary for the Degree in Arts, and to take the Degree at the end of the course. In the event of there being no qualified First Year Students, the Bursaries will be thrown open to competition for one year only to second, third, or fourth year Students in succession.

18. *A Maule Bursary*, of £21, 7s. 6d. a-year, tenable for six years, for the maintenance and education of a poor and deserving student if he shall continue so long to prosecute his studies at the University.

19, 20. *Two Grant Bursaries*, of the annual value of £45, and tenable for four years. The holders may attend classes in the Faculties of Arts, Science, Divinity, Law, or Medicine. Apply to Messrs Mackenzie, Innes & Logan, W.S., 23 Queen Street, Edinburgh, the agents for the Trustees, before 15th September.

21. *Edinburgh Ayrshire Club Bursary*, of £30 a-year, tenable for two years. Restricted to natives of Ayrshire (men and women). For particulars apply to Andrew White, Esq., W.S., 23 Castle Street, Edinburgh, before 15th September.

22. *Cowan Bursary*, £30 a-year for two years, and £20 for third year. Confined to students of Ayr Academy. Candidates' names must appear in Distinguished or Honours List, or Bursary will not be awarded. Apply to J. G. M'Skimming, Esq., Accountant, Ayr.

23. *Blair Bursary*, of £9, 12s. 6d. a-year, tenable for three years.

24. *The Jamieson Bursary*, of £26, for one year, if not awarded to a Preferential Candidate.

25. *Fotheringham and Forrest*, of £19, 16s. 6d. a-year, tenable for one year, if not awarded to a Preferential Candidate.

26. *A Baxter of Balgavies Bursary*, of the annual value of £30,

and tenable for three years, open both to men and women who have been educated in the High School of Dundee for at least one year immediately preceding the competition. The subjects of examination are the same as for the First Year Open Bursaries with the omission of Italian, and the addition of Chemistry (full marks 50) as a subject of examination. Candidates may select not more than five subjects, and the successful candidates may study for the Degrees of M.A., B.Sc., B.L., LL.B., or M.B., Ch.B.

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27. *One Jamieson Bursary*, of about £26 a-year, tenable for four years, open to sons of schoolmasters, farmers, mechanics, and labourers, and other persons born and residing within any of the parishes of Crawfordjohn, Crawford, Lamington and Wandell, Wiston and Roberton, Culter and Biggar. The Bursar may attend classes in any of the Faculties. Apply to Messrs Maconochie, Duncan & Hare, W.S., 10 Hill Street, Edinburgh, before 15th September.

28. *Orkney and Zetland Bursary*, of about £40 per annum, tenable for three years, is open for competition to First Year Students (male or female), natives, or children of parents who are natives, of the County of Orkney and Zetland. The Bursar must attend the classes in the Curriculum with a view to a Degree in Arts. Apply to Messrs Dundas & Wilson, C.S., 16 St Andrew Square, Edinburgh, before 15th September.

29. *Dundas Bursary* (lapsed), of £21 a-year, for three years. It cannot be held with any other Bursary in the University. Apply to A. D. M. Black, Esq., W.S., 28 Castle Street, Edinburgh, Trustee for T. G. Dundas, Esq., of Carronhall.

30. *Fotheringham and Forrest Bursary*, of the annual value of £19, 16s. 6d., tenable for four years—restricted in the first place to relatives of Founder, then to such as are of the name of Forrest.

31. *Mackinnon Bursary*, of about £20, 6s. 2d. a-year (under deduction of expenses), tenable for three years. Candidates must be natives of the Counties of Argyll, Bute, Inverness, Ross, or Sutherland, and must be examined in Gaelic.

32, 33. *Two Grierson Bursaries*, each of the annual value of £20, one tenable for four years, and one for three years—restricted in the first place to natives of the parishes of Crawford and Leadhills. If there be no Preferential Candidates, the examination will be as for Open Bursaries.

34. *Ardvorlich Bursary*, of the annual value of £16, tenable for four years. Open to natives of Comrie, Balquhidder, Callander, or Killin, failing whom, to natives of Perthshire, and failing such, to the best qualified Candidate who requires aid to enable him to obtain a University education. The holder must attend Arts or Science classes.

35, 36. *Two R. Johnstone Bursaries*, £15, 15s., tenable for four years. Bursars must pass Preliminary Examination or its equivalent, and must

attend the classes and graduate as M.A. Apply to Hope, Todd, & Kirk, W.S., 119 Princes Street, agents of J. J. Hope Johnstone, Esq., of Annandale.

37. *James Stewart Bursary*, of about £35, tenable, by a native of Callander or Trossachs, for three years, in any Scottish University. For particulars apply to R. Fulton, Esq., Schoolhouse, Callander, with Certificate of Birth, before 1st September.

38. *Mitchell and Shortt Bursary* in Mathematics, about £22, 0s. 8d., tenable for four years. Bursar must attend Classes in the Curriculum in Arts. Apply to Dalgleish & Bell, W.S., 1 Rutland Square, agents of the Earl of Morton, before 15th September.

39. *Pringle and Wardrop Bursary*, of £17, 3s. 10d. a-year, tenable for four years. Bursar must pass Preliminary Examination or its equivalent, and attend classes in curriculum for M.A. Apply to J. C. Wardrop, Esq., W.S., 5 Lombard Street, London, E.C.

40. *Chrystie Bursary*, of about £18, and tenable for four years. Candidates must pass the Preliminary Examination or its equivalent. Apply to the Clerk to the Faculty of Advocates, Parliament Square, Edinburgh, before 15th September.

41. *Renton Bursary* (not restricted to Students of the First Year), of about £20, for one year. The holder must attend one or more of the classes of Natural Philosophy, Mathematics, Chemistry, or Political Economy. Pecuniary circumstances will be taken into consideration. It cannot be held by anyone under the age of sixteen or above twenty-one, or with another Bursary of the annual value of £30 or upwards. The examination is in English and Elementary Mathematics, as for the First Year Open Bursaries. See Time-Table, pages 119-121. Names of Candidates to be entered on or before 16th September.

42. *Donald Fraser Bursary*, of £51, for high merit in the class of Natural Philosophy, combined with proficiency in Laboratory Work, is awarded annually at the end of the Winter Session.

43. *Maclaurin Bursary* (restricted to Candidates of the name of Maclaurin), of about £62, 10s. a-year, and tenable for five years in any of the Faculties. Apply to the Town Council of Edinburgh for information regarding this, and the other Bursaries in their patronage. Examination as for First Year Open Bursaries.

44-52. *Nine George Heriot Bursaries for Men* will be offered for Competition to Students matriculating at the University for the first time, after having passed the Preliminary Examination for a Curriculum in Arts or Science. Each Bursary is of the annual value of £30 a-year, and may be tenable for three years. Subjects of examination :—(1) Latin ; (2) Mathematics ; (3) English ; (4) Greek ; (5) French ; (6) German ; (7) Italian ; and (8) Dynamics. Candidates may select not more than five subjects of examination. The examination papers are indicated by the figure 1 in the Time-Table of Examinations. Full marks as for Open Bursaries. Applications for Schedules for these Bursaries may be made to the *Governors of George*

Heriot's Trust, at the Office of the Treasurer, 20 York Place, Edinburgh, on and after 15th August, and must be returned to him not later than 15th September. Candidates are required to state in their schedules of application the subjects in which they offer themselves for examination.

53-55. *Three Heriot High School Bursaries*, of £30 a year, may be tenable for three years. Regulations as in last paragraph.

56-67. *Twelve George Heriot Bursaries for Women* will be offered for competition to Students matriculating at the University for the first time, after having passed the Preliminary Examination for a Curriculum in Arts or Science. Each Bursary is of the value of £30 a-year, and may be tenable for three years. The subjects and conditions of the examinations are the same as for the Bursaries for men. Application to be made in the manner referred to in the previous paragraph. The examination papers are indicated by the figure 1 in the Time-Table.

68, 69. *Two George Heriot Bursaries for Women* studying Medicine, for attendance at any School of Medicine for Women in Edinburgh recognised by the University Court. Each Bursary is of the value of £30 a-year, and may be tenable for three years. Candidates *must pass the Preliminary Examination of the University either in Arts or Science.* They may take as many subjects in addition to those qualifying for the Preliminary Examination as they please ; but should they fail to secure 25 per cent. of the marks allotted to a subject the paper will be cancelled. Application to be made in the manner referred to in the previous paragraph.

70-74. *Five George Heriot Bursaries for Women*, of £30 each, and tenable for one year, at St George's Training College, Edinburgh. Graduates *must pass the University Examination for the First Year Open Bursaries.* The subjects are :—English (full marks 100), Latin (100), Greek (100), Mathematics (100), French (50), German (50), Italian (50), and Dynamics (50), with additional papers in English, Latin, Greek, Mathematics, French, and German. Candidates may select not more than five subjects ; provided always that no Candidate will be credited with marks in any subject in which she has not obtained 25 per cent. of the total marks assigned to that subject. Those who select Latin, Greek, or Mathematics must for the Bursary Competition take the papers on these subjects on the Higher Standard. The Examination Papers are indicated in the Time-Table of Examinations by the figure 1. Women-students who hold the Cambridge University Honour or Ordinary Certificates, which are equivalent to the degrees conferred on men-students, and women-students who hold the corresponding equivalents to degrees from the University of Oxford will rank for purposes of Competition as Graduates. Non-Graduates *must pass the Preliminary Examination of the University in Arts or Science, either directly or by means of exempting Certificates.* They may take as many subjects as

they please in addition to those qualifying for the Preliminary; but should they fail to secure 25 per cent. of the marks allotted to a subject, the paper will be cancelled. The marks are as follows: English, 100; Latin (Higher Grade), 100; Latin (Lower Grade), 50; Greek (Higher Grade), 100; Greek (Lower Grade), 50; Mathematics (Higher Grade), 100; Mathematics (Lower Grade), 50; French, 70; German, 70; Italian, 70; Dynamics, 50. No marks will be given for the lower paper in any subject where the higher paper in that subject is also taken. Applications for Schedules for these Bursaries may be made to the Governors of George Heriot's Trust at the Office of the Treasurer, 20 York Place, Edinburgh, on and after 15th August, and must be returned to him not later than 15th September.

75, 76. *Two Simson Bursaries*, of the annual value of £25, tenable for three years, for Students who, having passed the Preliminary Examination, are entering on the first year of the course in Arts and are studying for the Ministry of the Church of Scotland. See definition of a First-year's Student, at page 184. The Examination will be held at the end of October or beginning of November. Apply to the Rev. Dr Langwill, Currie, or to the Rev. Dr Patrick, Greenside, Edinburgh.

77. *A Macdougall Bursary*, of £30 per annum, tenable for three years. Students attending the Gaelic Class preferred. It cannot be held with any other Bursary or appointment yielding together upwards of £50 per annum. Apply to W. C. Young, Esq., Solicitor, Perth.

78-80. *Bursaries offered by The Edinburgh Association for the University Education of Women.*

(1) *The Victoria Jubilee Bursary*, founded by His Excellency Dr Gunning, £30 for one year. (Circumstances to be taken into consideration.)

(2) *The Earl of Zetland's Bursary*, about £20 for one year.

(3) *The Houldsworth Bursary*, of about £20 for two years. (Open to Candidates intending to become teachers.)

These Bursaries are offered to women Candidates. The Subjects of Examination are the same as for the University First Year Open Bursaries, see page 184. They cannot be held along with any other Bursary or Scholarship whatsoever, and will be awarded to such Candidates as in the opinion of the Executive Committee best fulfil the conditions of the several trusts.

Apply to the Hon. Secretary of the Association, Miss Louisa Stevenson, 13 Randolph Crescent, Edinburgh.

81. *The "Students' Subscription Bursary," offered through Committee of St George's Classes.*—Bursary of £10 for one year, offered to the woman student who passes highest, among members of the St George's Oral or Correspondence Classes, in the Arts Preliminary Examination in October. For further information apply to the Secretary, St George's Classes, 5 Melville Street, Edinburgh.

82-85. *The Buchanan Society give Four Bursaries* annually in

Arts and Science, open to suitable young men of the names of Buchanan, M'Millan, M'Auslan, M'Wattie, and Risk. The Examination Papers are of equal value for full marks in both Arts and Science subjects, and the four competitors who have the highest marks get the Bursaries, provided a satisfactory standard of proficiency is attained. They may therefore be given all in Arts or all in Science. The Arts Bursaries are of the value of £30 annually, tenable for four years, under certain conditions. The Science Bursaries are of the value of £35 annually, tenable for three years, but may be extended to four years, under conditions similar to the Arts ones. For rules and further particulars apply to Geo. Y. Strang Watkins, 186 West George Street, Glasgow, *Secretary;* or to Geo. S. Buchanan, 85 Candleriggs, Glasgow, *Treasurer.*

FOR STUDENTS ENTERING THE SECOND SESSION IN ARTS.[1]

See Time-Table of Examinations, pages 119-121.

1. *Tyndall Bruce Bursary*, £35 a-year, for three years.

2, 3. *Two Stuart Bursaries*, annual value £18, one tenable for three years and one for two years.

The subjects of examination are Latin, Greek, and Mathematics.

The following subjects are prescribed for the examinations in Latin and Greek:—*Latin*—Virgil, *Aen.*, xi. and xii.; Horace, *Odes*, iii.; Tacitus, *Annals*, i. *Greek*—Homer, *Iliad*, xxii. and xxiii.; Aristoph., *Acharnians;* Plato, *Phaedo.* Latin and Greek prose composition, and translation from books not prescribed.

4. *Patterson Bursary in Anglo-Saxon.* See page 192.

Names of Candidates to be entered on or before 16th September.[1]

5, 6. *Two Spence Bursaries*, each of the annual value of £30 for first year and £40 for second year of tenure, open to Students of either sex who, after passing the Preliminary Examination or examination accepted as equivalent thereto, have attended one Winter Session qualifying for graduation or its equivalent, and who intend to complete the course of study for the Degree of M.A. The Governors may award to any Bursar, if they shall be satisfied of his or her merit, a continuation Bursary of £50, tenable one year, on condition that the Bursar shall for that year attend such a Curriculum of study in any of the Faculties as the Governors may approve. The next examination will take place at Edinburgh in September or October 1898. Apply to Mr Henry A. Pattullo, Solicitor, 1 Bank Street, Dundee, Factor to the Trust, for particulars. Names to be entered on or before 1st September.

FOR STUDENTS ENTERING THE THIRD SESSION IN ARTS.[1]

See Time-Table of Examinations, pages 119-121.

1. *Horsliehill Scott Bursary*, of £33, 6s. 4d. for two years (under deduction of expenses).

[1] See footnotes 1 and 2, page 180.

The subjects of examination are Classics, Mathematics, and Logic (with Psychology and History of Philosophy).

The following subjects are prescribed for the examination in Classics:—*Latin*—Virgil, *Aen.*, xi. and xii.; Horace, *Epistles*, i.; Tacitus, *Annals*, i. and ii. *Greek*—Aristoph., *Acharnians;* Plato, *Phaedo.* Latin and Greek prose composition, and translation from books not prescribed.

No special books prescribed for Mathematics, or for Logic with Psychology and History of Philosophy. Candidates should revise the lectures and text-books in these classes.

2. *Patterson Bursary in Anglo-Saxon Grammar and Literature*, of £16, 2s. 4d. a year, tenable for two years, and open to all students in their second, third, or fourth year of Matriculation who have attended the Class of English Literature and the Honours Class in English Language, both in this University. The Examination will be on—

(1.) *Literature.*—The Class Lectures; Ten Brink's *Early English Literature*, Vol. I., Bk. i., transl. by Kennedy; Stopford Brooke's *History of Early English Literature* (i. and ii.).

(2.) *Language.*—Old English Grammar, as treated in Sievers's *Old English Grammar*, ed. Cook; the "Grammatical Introduction" to Sweet's *Old English Reader* (Clar. Press); Morris and Kellner's *Historical Outlines of English Accidence;* and Kellner's *Historical Outlines of English Syntax.*

(3.) *Prescribed Readings.—The Chronicle*, A.D. 890-1001, in the Parker Text (ed. Plummer); selections from Ælfred's "Orosius," Ælfred's "Beda," and Ælfric's "Life of King Oswald," printed in Sweet's *Old English Reader; The Wanderer* (Grein, ed. Wülcker, I., p. 284; Sweet's *Reader*, p. 177); *Beowulf*, l. 1251—l. 1887, Siȝon þa to slæpe., . . . se þe oft maneȝum scod (Grein, ed. Wülcker I., pp. 159-219).

(4.) An unseen passage for translation into modern English.

Names of Candidates to be announced at the *Matriculation Office*, *University*, *Edinburgh*, not later than the 16th September 1898.[1]

The attention of all Bursars in the Faculty of Arts is particularly called to the following regulation:—

"Bursars in the Faculty of Arts (to whose Bursaries special conditions are not attached) must annually attend at least two of the Classes necessary for the Degree of Master of Arts, and must present themselves at the Examinations necessary for that Degree.

"Each Bursar must present a Certificate, signed by the Dean, attesting his regular attendance on the proper Classes in the Faculty of Arts, on each occasion on which he applies to the Factor for a payment."

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[1] See footnotes 1 and 2, page 180.

Certificates, in terms of this regulation, will be given to Bursars, by the *Dean of the Faculty of Arts*, after 14th November ; also at the end of the Session. In applying to the Dean for the Certificate in November, Bursars must present their Class Cards for the Session ; and at the end of the Session they must present certificates from the Professors that they have attended with regularity and made progress in their studies. Payments are made by the University Factor, Mr Henry Cook, W.S., 61 North Castle Street, Edinburgh, on and after 14th November for the Martinmas payments, and on and after 18th May for the Whitsunday payments,—between 10 and 3 o'clock.

N.B.—*Bursars, Scholars, and Fellows who desire to resign should at once announce this to the Factor. They must apply to the Factor for the instalments due to them within three months after they have become payable, otherwise they will be regarded as having resigned.*

G. CHRYSTAL, LL.D.,
Dean of the Faculty of Arts, and
Professor of Mathematics.

Faculty of Science.

Dean—PROFESSOR GEIKIE, D.C.L., LL.D.

Students who do not intend to graduate may attend any of the Classes on payment of the Matriculation and the Class Fees, without having passed any Preliminary Examination. Attendance on any Class with a view to Graduation in Pure Science will not qualify unless the whole Preliminary Examination has been previously passed. Those who intend to graduate in Engineering or in Agriculture must pass the Preliminary Examination before they present themselves for any part of the First Science Examination, but not necessarily before entering on the Curriculum. The Classes in the Faculty, except a few in which arrangements have not yet been made, are now open to women.

Programme of Classes.

WINTER SESSION, 1898-99.

The Classes meet daily (Saturdays excepted), unless otherwise stated:—

Classes.	Days of Opening and Hours of Attendance.	Professors and Lecturers.	Class Fees.[1]
Junior Mathematics...	18 Oct., 12 o'cl.	Prof. Chrystal	£3 3
Senior Mathematics[4]..	18 Oct., 9 ,,		3 3
Mathematics (Intermediate Honours)	19 Oct., 11 ,,		3 3
Do. (Advanced Honours).....	19 Oct., 10 ,,		3 3
Zoology (Elementary)	18 Oct., 12 ,,	Prof. Ewart	4 4
Practical Zoology (Elementary).....	18 Oct., 11 ,,		2 2[2]
Advanced Zoological Laboratory ...	... ...		...
Morphology of Vertebrates (with Laboratory work)	19 Oct., 2 ,,	J. Beard, D.Sc...	3 3[2]
Comparative Embryology.....	10 Jan., 2 ,,		3 3[3]

[1] Fees for second and subsequent attendances, see page 198.
[2] Besides charge of 10s. for Laboratory Expenses.
[3] Five Shillings University Entrance Fee for non-matriculated Students.
[4] The first half up to Christmas qualifies as a First Half-Course, and the second half from Christmas to the end of the Session as a Second Half-Course. *Any* First Half-Course, along with *any* Second Half-Course, taken subsequently, qualifies as a full Course for Graduation.

Classes.	Days of Opening and Hours of Attendance.	Professors and Lecturers.	Class Fees.[1]
Botany (Advanced) ...	18 Oct., 11 o'cl	Prof. B. Balfour	£3 3[2]
Prac. Bot. (Advanced)	18 Oct., 11 ,,		2 2[2]
Plant Physiology	18 Oct., 10 ,,	J. H. Burrage, M.A.	2 2[2]
Natural Philosophy...	18 Oct., 11 ,,	Prof. Tait.....	3 3
Do. (Advanced Honours).....	26 Oct., 12 ,,		3 3
Physical Laboratory .	24 Oct., 10 ,,		2 2
Natural Philosophy (Intermediate Honours Course) (*Mon., Wed., Fri.*)	19 Oct., 9 ,,	Cargill G. Knott, D.Sc.....	3 3
Dynamics (Advanced Science Course) (*Mon., Wed., Fri.*)	19 Oct., 10 ,,		3 3
Chemistry	18 Oct., 10 ,,	Prof. Crum Brown	4 4
Practical Chemistry...	1 Dec., 11 &2,,		3 3
Chemistry (Advanced Course) ..	4 Jan., 4 ,, (*Tu. Wed. & Th*)		2 2
Chemical Laboratories[5]	... ...		...
Astronomy (*Mon., Tues. Wed. Thurs.*)	19 Oct., 12 ,,	Prof. Copeland..	3 3
Anatomy.....	18 Oct., 1 ,,	Prof. Sir William Turner.....	4 4
Practical Anatomy....	1 Oct., *daily.*		3 3
Regional Anatomy (Anatomical Demonstrations).....	19 Oct., 4 o'cl.	David Hepburn, M.D.....	2 2[3]
Physiology.....	18 Oct., 10 ,,	Prof. Rutherford	4 4
Practical Physiology..	19 Oct., 3 ,,		3 3
Do. do. (Advanced)	24 Oct., 11 ,,	E. W. Carlier, M.D.	4 4
Geology & Mineralogy	18 Oct., 4 ,,	Prof. Geikie.....	4 4
Prac. Class[4] (*Mon., Wed., & Fri.*) ...	21 Oct., 2-4 ,,		3 3[4]
Engineering	1 Nov., 9 ,,	Prof. Armstrong	4 4
Sanitary Engineering and Building Construction	8 Nov., 10 ,,		2 2
Public Health and Sanitary Science.		[7]	
Do. Laboratory[6]..	3 Oct., *daily.*		

[1] Fees for second and subsequent attendances, see page 198.
[2] Besides Garden Fee of Five Shillings.
[3] When taken along with Practical Anatomy, £1, 1s.
[4] First part of this Course up to Christmas qualifies as a Half-Course for Graduation in Arts. Fee, £2, 2s.
[5] For fees, &c., see footnote 1, page 200.
[6] Fees :—Winter Session, £10 10s. ; Summer Session, £6, 6s.
[7] Vacant at date of issue.

Classes.	Days of Opening and Hours of Attendance.	Professors and Lecturers.	Class Fees.[1]
			£ s.
Engineering (short additional Course: Applied Mech.)...	19 Oct., 9 o'cl.		1 1[6]
Geomet. and Mech. Drawing.....	1 Nov. 10 to 2 ,,	W. Hume Kerr, M.A., B.Sc....	2 2
Lectures (*Mon. & Thur.*).....	1 Nov., 12 ,,		
Drawing in its relation to Public Health.....	2 Nov., 11 ,,		2 2
Agriculture and Rural Economy..	18 Oct., 9 ,,	Prof. Wallace ..	4 4
Economics as applied to Agriculture (*The Political Economy Class in Arts till Christmas*)	18 Oct., 5 ,,	Prof. Nicholson	2 2
Agricultural Chemistry.....	18 Oct., 3 ,,	A. P. Aitken, D.Sc.....	3 3
Do. Advanced Laboratory Class..	18 Oct., 12-3 ,, (*Tu. & Th.*)		4 4[5]
Forestry.....	18 Oct., 10 ,,	Col. Bailey, R.E.	3 3[2]
Agricultural Entomology (Twenty Lectures).....	4 Jan., 2 ,,	W. Fream, LL.D., B.Sc. (Lond.)	2 2[2 3]

SUMMER SESSION, 1899.

The Classes meet daily (Saturdays excepted), unless otherwise stated.

Classes.	Days of Opening and Hours of Attendance.	Professors and Lecturers.	Class Fees.[1]
			£ s.
Senior Mathematics (First Graduation Half-Course)[4].....	2 May, 11 o'cl.	Chas. Tweedie, M.A., B.Sc.	2 2
Senior Mathematics (Second Graduation Half-Course)[4].....	2 May, 12 ,,		2 2

[1] Fees for second and subsequent attendances, see page 198.
[2] Five Shillings University Entrance Fee for non-matriculated Students, unless taken with a view to Graduation in Agriculture.
[3] Free to all present and past Students of the Agriculture Class.
[4] For Regulations as to Half-Courses, see footnote 4, page 194.
[5] On payment of this fee, students who have already attended the Ordinary Class will be readmitted to that class.
[6] No Fee for Students of class of Systematic Engineering.

Classes.	Days of Opening and Hours of Attendance.	Professors and Lecturers.	Class Fees.[1]
Honours Mathematics (Half-Graduation Course)	2 May, 10 o'cl.	Chas. Tweedie, M.A., B.Sc.	£ 2 s. 2
Physics (*mainly for Students of Medicine*)	2 May, 12 ,,	Prof. Tait	3 3
Physical Laboratory	2 May, 10 ,,	Prof. Tait and Assistant	2 2
Elementary Dynamics	2 May, 9 ,,	C. G. Knott, D.Sc.	2 2
Advanced Experimental Physics	2 May, 10 ,,	W. Peddie, D.Sc.	2 2
Chemistry (Organic).	2 May, 1 ,,	Prof. Crum Brown	2 2
Do. (Practical)	2 May, 2 ,,		3 3
Chemical Laboratories[5]	... ...		...
Chemical Theory (*Mon. & Fri.*)	5 May, 10 ,,	Leonard Dobbin, Ph.D.	1 1
Mineralogy and Crystallography	3 May, 9 ,,	Hugh Marshall, D.Sc.	2 2
Astronomy (Advanced) (*Tues. & Fri.*)	2 May, ,,	Prof. Copeland	2 2
Practical Anatomy	1 May, *daily.*	Prof. Sir W. Turner and Demonstrators	2 2
Anthropology	9 May, 2 o'cl.		2 2[2]
Regional Anatomy (Anatomical Demonstrations)	3 May, 11 *daily.*	David Hepburn, M.D.	...
Practical Physiology	2 May, *several hours.*	Prof. Rutherford	3 3
Do. (Advanced Class)	*In Winter only.*	E. W. Carlier, M.D.	4 4
Geology (*Mon., Wed., Fri.*)	3 May, 4 o'cl.	Prof. Geikie,	3 3[3]
Field Demonstrations on *Saturdays.*	... ...		...
Petrology (*Mon., Wed., Fri.*)	3 May, 10-12 ,,	J. S. Flett, M.A., B.Sc., M.B., C.M.	2 2
Zoology (Elementary).	2 May, 12 ,,	Prof. Ewart	4 4
Do. (Elementary Practical)	2 May,[6] ,,		2 2[4]

[1] Fee for second or subsequent attendances, see page 198.
[2] When taken with Practical Anatomy, £1, 1s.
[3] This Course qualifies as a Half-Course for Graduation in Arts.
[4] Besides charge of 10s. for Laboratory Expenses.
[5] For Fees, &c., see footnote 1, page 200.
[6] At hours to be arranged.

Classes.	Days of Opening and Hours of Attendance.	Professors and Lecturers.	Class Fees.[1] £	s.
Invertebrate Zoology	2 May, o'cl.	Prof. Ewart	2	2
Do. (with Lab. Work)			3	3[2]
Natural History Laboratory	2 May, 2 ,,		6	6
Botany	2 May, 8 ,,	Prof. Bayley	4	4[3]
Practical Botany	2 May, 9 ,,		2	2[3]
Field Demonstrations on *Saturdays*	... ...	Balfour		...
Plant Physiology	3 May, 2 ,,	J. H. Burrage, M.A.	2	2[3]
Engineering Field-Work (Surveying, Levelling, &c.)[4]	14 June, 9.30 ,,	Prof. Armstrong	3	3
Public Health and Sanitary Science	2 May *daily*.	[6]		
Do. Laboratory[5]				

FEES FOR SECOND OR SUBSEQUENT ATTENDANCES.

1. *Lecture Courses*, which qualify alike for Graduation in Science and Medicine: Second attendances on £4, 4s. Courses, £3, 3s.; on £3, 3s. Courses, £2, 2s.; subsequent attendances free: second attendances on £2, 2s. Courses, no reduction; third or subsequent attendances, £1, 1s. Perpetual Tickets for initial payment, £6, 6s. No reduction for re-attendances on Practical Classes or Laboratories.

2. *Lecture Courses* which qualify both for Arts and Science: Second attendances on £4, 4s. Courses, £3, 3s.; third or subsequent attendances, £1, 1s.; second attendances on £3, 3s. Courses, £2, 2s.; third or subsequent attendances, £1, 1s.; second attendances on £2, 2s. Lecture Courses (not being Honours Half-Courses for M.A.), £1, 11s. 6d.; third or subsequent attendances, £1, 1s.; Lecture Courses, when fee for first attendance is less than £2, 2s., no reduction. Full Courses (being also Honours Courses for M.A.), second attendances, no reduction; third or subsequent attendances, £2, 2s.; second

1 Fees for second or subsequent attendances, see above.
2 Besides charge of 10s. for Laboratory Expenses.
3 Besides Garden Fee of 5s.
4 Given in alternate Summers. Next Course in 1901.
5 Fee for Summer Session, £6, 6s.
6 Vacant at date of issue.

attendances on £2, 2s. Courses (being also Half Honours Courses for M.A.), no reduction; third or subsequent attendances, £1, 1s.

3. *Lecture Courses* not included in the curricula in Arts or Medicine: Second attendances on £3, 3s. Courses, no reduction; third or subsequent attendances, £2, 2s.; on £2, 2s. Courses, second attendances, no reduction; third or subsequent attendances, £1, 1s. On Agriculture and Rural Economy, second attendance, £3, 3s. Perpetual Ticket by initial payment, £6, 6s.

4. *Courses in Engineering and Drawing.* No reduction for second or subsequent attendances.

5. *Practical Classes and Laboratory Courses.* No reduction for re-attendances.

MATRICULATION FEES, &c. See pages 27-29.

The following means are afforded for Practical Instruction:—

I. LABORATORIES.

PHYSICAL LABORATORY, affording Students a practical knowledge of the construction and use of physical apparatus, and the mode of conducting experimental inquiries, daily from 10 to 3, under Professor Tait.

GEOLOGICAL AND PETROLOGICAL LABORATORY, for practical instruction in the study of Minerals, Rocks, and Fossils, and the methods of plotting and drawing geological maps and sections, on Monday, Wednesday, and Friday from 2 to 4, under the Professor, assisted by J. S. Flett, M.A., M.B., C.M., B.Sc.

ENGINEERING DRAWING CLASS ROOM, daily during the Winter Session, from 10 to 2, for instruction in drawing and drawing-office routine.

THE ENGINEERING (FULTON) LABORATORY, open on fixed days during the Winter Session, for practical instruction in the processes employed by the Engineer in the Experimental Determination of the Physical and Economical Constants of Materials, Machines, and Prime Movers, and in the Practical Applications of Electricity.[1]

PRACTICAL INSTRUCTION IN OFFICE AND FIELD-WORK, daily (in alternate years), in connection with the Summer Course on Surveying, Levelling, &c., from 11 to 4.

AGRICULTURE DEPARTMENT in the Museum of Science and Art, open daily to Students attending the Agriculture Class. Excursions to farms are made on Saturdays. The leading agricultural newspapers are left for the use of Students in the Agriculture Lecture Room.

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1 Fees—Winter Session, £10, 10s.; Summer Session, £6, 6s.

ROYAL OBSERVATORY, open to Students of Astronomy on Friday evening, from 8 P.M.

ROYAL BOTANIC GARDEN LABORATORY at the ROYAL BOTANIC GARDEN, open daily for the practical study of plants and for research, under the Professor, assisted by James Adam Terras, B.Sc., and J. H. Burrage, M.A.

PHYSIOLOGICAL LABORATORY, for Physiological Research, and the study of Practical Physiology, open daily, under the Professor, assisted by E. W. Carlier, M.D., B.Sc.; T. H. Milroy, M.D., B.Sc.; and [1]

The CHEMICAL LABORATORIES (distinct from the Practical Chemistry Class Room) have accommodation for forty Students. They contain the necessary equipment for a complete course of instruction in the various branches of Chemical Work and for Research. The instruction given includes Complex Qualitative Analysis, Quantitative, Inorganic, and Organic Analysis (with special courses in Gas Analysis, Assaying, &c.), and Chemical Preparations. The training is suited not only for Students studying for Science and Arts Degrees, or for the Examinations of the Institute of Chemistry, but also for persons desiring to qualify themselves as Analysts, Technical Chemists, &c.

The Laboratories are open from 9.30 to 4.30 daily, during the Winter and Summer Sessions, and are under the charge of Professor Crum Brown, assisted by Leonard Dobbin, Ph.D.; Hugh Marshall, D.Sc.; and J. P. Longstaff.[2]

DISSECTING ROOMS, open daily under Professor Sir William Turner, assisted by David Hepburn, M.D.; E. J. H. Fraser, M.B., C.M.; David Waterston, M.B., C.M.; T. R. W. Armour, M.B., C.M.; and other assistants. Opens 1st October 1898 and 1st May 1899.

NATURAL HISTORY LABORATORIES, for research and for study of the structure and development of Invertebrate and Vertebrate forms, open daily, under the Professor, assisted by J. Beard, D.Sc.; and Gregg Wilson, M.A., D.Sc.[3]

PUBLIC HEALTH LABORATORY, for Hygienic investigation, comprising a Chemical, a Bacteriological, and a Meteorological Department, open daily, under the Professor, assisted by—(Not appointed at date of issue). Opens 3rd October 1898 and 2nd May 1899.[3]

II. MUSEUMS. See pages 51-54.

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1 Vacant at date of issue.

2 Fees for Chemical Laboratory.—*Whole-day*—Winter Session, £10, 10s.. Oct.-Dec., Jan.-March; or Summer Session, £5, 5s. *Half-day*—Winter Session, £6, 6s.. Oct.-Dec., Jan.-March; or Summer Session, £3, 3s. Preference will be given to Students in the above order. Students who are not Matriculated may attend the Chemical Laboratory on payment of the entrance fee of 5s. in addition to the Laboratory fees.

3 Fees—Winter Session, £10, 10s.; Summer Session, £6, 6s.

Courses of Lectures.

1898-1899.

I.—PURE SCIENCE.

1. MATHEMATICS.

PROFESSOR CHRYSTAL.

CHARLES TWEEDIE, M.A., B.Sc., *Lecturer.*

For Synopses of Lectures, see under Faculty of Arts.

II. ZOOLOGY, including COMPARATIVE ANATOMY.

PROFESSOR EWART.

For Synopses of Lectures on Zoology and of Courses on Practical Zoology, see under Faculty of Medicine.

COMPARATIVE EMBRYOLOGY.

J. BEARD, D.Sc., *Lecturer.*

The Course consists of Lectures and Practical Work.

Lectures.—The following subjects will be dealt with :—Conjugation and sexual reproduction, the maturation, &c., of the egg and spermatozoan, the modes of formation of the germinal layers in a series of selected types, the development of Scyllium or Raja, Amphioxus and Rana as a basis for general Vertebrate Embryology, the organogeny of the chief systems of organs in the Vertebrata, the evolution and comparative development of the placenta. A few lectures will be given on the general principles and theory of Comparative Embryology, the recapitulation theory, and the nature of larval forms.

Practical Work.—Each member of the Class will have an opportunity of preparing for himself and studying a series of preparations to illustrate the development of Salmo, Rana, Gallus, and other forms. In addition, an extensive series of preparations of Raja, Scyllium, Torpedo, and Lacerta, &c., and of certain Invertebrate forms will be available.

In the Laboratory Work members of the Class may confine their studies to one particular type, or to some selected branch, such as Mammalian Embryology.

Books for reference.—Marshall's "Vertebrate Embryology"; Hertwig's "Embryology of Man and the Higher Vertebrates"; Korschelt und Heider's "Vergleichende Embryologie der Wirbellosenthiere"; Willey's "Amphioxus"; and E. B. Wilson's "The Cell."

MORPHOLOGY OF THE VERTEBRATA.

A Course of twenty-five Lectures on the Morphology of the Vertebrata; the nervous system and its sense organs and the genito-urinary system receiving particular attention.

As far as time permits the question as to the morphological nature of the vertebrate head and skeleton will be discussed.

III. BOTANY.

PROFESSOR BAYLEY BALFOUR.

For Synopsis of Lectures, see under Faculty of Medicine.

PLANT PHYSIOLOGY (ADVANCED)

J. H. BURRAGE, M.A., *Lecturer.*

This Course will be given at the Royal Botanic Garden both in the Winter and the Summer Sessions. It will consist of Lectures and Practical Demonstrations, supplementary to the Lectures of the Professor. The Processes in Plant Nutrition, Assimilation, and Respiration, the Irritability and Movements of Plant Organs, and the Physiology of the Reproductive Process in Plants will be treated.

IV. NATURAL PHILOSOPHY.

PROFESSOR TAIT.

C. G. KNOTT, D.Sc., *Lecturer on Applied Mathematics.*

ELEMENTARY DYNAMICS.

C. G. KNOTT, D.Sc., *Lecturer.*

ADVANCED EXPERIMENTAL PHYSICS.

WILLIAM PEDDIE, D.Sc., *Lecturer.*

For Synopses of Courses, see under Faculty of Arts.

V. CHEMISTRY.

PROFESSOR CRUM BROWN.

For Synopses of Courses, see under Faculty of Medicine.

ORGANIC CHEMISTRY.

This Class meets daily during the Summer Session at 1 P.M.

ADVANCED CHEMISTRY.

Course of twenty-five Lectures to begin after Christmas. Subject for 1898-99, "Solution and Electrolysis."

CHEMICAL THEORY.

LEONARD DOBBIN, PH.D., *Lecturer.*

The subjects will vary from year to year. They will include historical matters, and discussions of the more important chemical theories which are at present productive or which have been superseded. The Class will meet on Mondays and Fridays at 10 A.M., during the Summer Session. The Subject proposed for 1898-99 is, "The History of Inorganic Chemistry from the time of Lavoisier."—Fee, £1, 1s.

MINERALOGY AND CRYSTALLOGRAPHY (ADVANCED).

HUGH MARSHALL, D.Sc., *Lecturer.*

Daily, at 9 A.M., beginning Wednesday, 3rd May. Fee, £2, 2s.

The earlier part of the Course will be on Physical Crystallography generally, including the optical and other properties of crystalline substances and the geometrical properties of crystals. The latter section will deal specially with minerals, with those parts of Systematic Mineralogy not included in the earlier section, and with the Descriptive Mineralogy of minerals of most importance from a Geological or a Chemical point of view. Some of the meetings will be devoted to Elementary Practical Work and Demonstrations.

VI. ASTRONOMY.

PROFESSOR COPELAND.

For Synopsis, see under Faculty of Arts.

An Advanced Practical Course, consisting of thirty meetings of two hours each, may be held in Summer.

PRACTICAL ASTRONOMY (ADVANCED SUMMER CLASS).

This Class will only be held if a sufficient number of Students present themselves. It will meet at the Royal Observatory, Blackford Hill, on Tuesdays and Fridays in the Summer Session. Evening hours will also be arranged to suit the progress of the work.

VII. HUMAN ANATOMY, including ANTHROPOLOGY.

PROFESSOR SIR WILLIAM TURNER.

For full Synopsis of Lectures on Anatomy and for Course of Practical Anatomy, see under Faculty of Medicine.

ANTHROPOLOGY.

If a sufficient number of Students express their intention of selecting Human Anatomy, including Anthropology, as a subject for the Degree of B.Sc., the Professor of Anatomy will deliver, during the Summer Session, a course of twenty-five Lectures on Physical Anthropology. Fee, £2, 2s.; or for Students who take the Summer Course of Practical Anatomy, £1, 1s.

VIII. PHYSIOLOGY.

PROFESSOR RUTHERFORD.

For Synopsis of Lectures, see under Faculty of Medicine.

ADVANCED PRACTICAL PHYSIOLOGY.

E. W. CARLIER, M.D., B.Sc., *Lecturer.*

This Course is devoted to Experimental and Chemical Physiology and Histology of a more advanced nature than that of the ordinary course of Practical Physiology.

1. The Experimental part embraces the Experimental Physiology of muscle and nerve; the heart and circulation; respiration; central nervous system; organs of sense and voice.

2. The Chemical part embraces the analysis of organic substances found in tissues of animal body. The chemical examination of the blood; the digestive fluids and their actions; the liver and its secretions; milk; muscle; and urine. The Pathological as well as Physiological Chemistry of the above is taken into account.

3. The Histological part embraces the advanced study of the structure of various tissues and organs as revealed by recent methods of research of a refined character.

This Course is adapted for those preparing for examinations in Natural Science and Honours Examinations in Physiology, and for those who may afterwards desire to prosecute Physiological Research.

The Class meets for two hours twice a week in the Winter Session, beginning in October and extending to March.

IX. GEOLOGY, including MINERALOGY.

PROFESSOR GEIKIE.

Winter Course.

I. CLASS OF GEOLOGY AND MINERALOGY.—Daily, at 4 o'clock. The Course embraces :—

1. *The History of Geology*—An outline of the growth of the science from the time of the early cosmogonies downwards.

2. *Dynamical Geology*—A discussion of the nature and causes of geological changes effected on the surface and within the interior of the earth.

3. *Mineralogy*—An account of the physical and chemical characters of minerals, and a description of some of the more important and typical species in the various mineral groups.

4. *Petrology*—A description of the various families of rocks.

5. *Structural Geology*—A description of the geological structure and relations of rock-masses to each other.

6. *Palæontological Geology*—An account of the nature and use of fossils in geological inquiry.

7. *Palæontology*—A description of the more important types of life represented by fossils.

8. *Historical Geology*—The history of the successive geological periods.

9. *Physiographical Geology*—An inquiry into the origin of the present outlines of the earth's surface.

Text-Books—"Outlines of Geology," by the Professor (*Stanford*); Hatch's "Mineralogy" (*Whittaker*); Hatch's "Petrology"

(*Sonnenschein*) or Harker's "Petrology for Students" (*Cambridge University Press*). More detailed works of reference, most of which are in the College Reading-Room, are recommended for each branch of the lectures.

II. Class of Practical Mineralogy and Geology.—Two hours (2 to 4), on Mondays, Wednesdays and Fridays, under superintendence of the Professor. This Course, up to Christmas, is a half-Course qualifying for Graduation in Arts.

III. Field Demonstrations.—Short excursions are made on Saturdays to places of geological interest near Edinburgh, when the Class Lectures are illustrated by demonstrations in the field, and practical instruction is given in Geological Surveying. At the close of the Session (usually in the last week of April) an excursion, of about a week, may be made for the purpose of examining the structure of a more distant district.

These Field Demonstrations are open to Students attending either the Class Lectures or the Practical Class.

Adjoining the Class-room is a small Museum exhibiting the characters of minerals and rocks, and the typical fossils of the different geological systems.

Summer Course.

The following subjects are dealt with in this Course :—

1. *Petrology.*—(The lectures are illustrated by demonstrations in the Laboratory and the Class Museum.)

2. *Palæontological Geology.*—(Class Museum, see above).

3. *Structural Geology.*—Under this head *Dynamical Geology* is also discussed in more or less detail.

4. *Geological Surveying.*

5. *Economic Geology: application of Geology to Mining, Engineering, Agriculture, Public Health, &c.*

6. *Physiographical Geology.*

Structural and *Field Geology* form the principal portion of this Course, but no previous knowledge of Geology is required of the student—the elementary principles of the science being set forth both in the lecture-room and the field. The Class meets on Mondays, Wednesdays, and Fridays at 4, and a

series of practical lessons on the study of rocks will be given at the beginning of the Session on Tuesdays and Thursdays at the same hour. The Saturdays are devoted to field demonstrations, when the mode of geological mapping and section drawing is explained and illustrated. This Course is a Half-Course qualifying for Graduation in Arts.

PETROLOGY.

J. S. FLETT, M.A., B.Sc., M.B., C.M., *Lecturer.*

Lectures and Practical Work, on Mondays, Wednesdays, and Fridays, from 10 to 12, in Summer.

II.—APPLIED SCIENCE.

I.—ENGINEERING.

I. MATHEMATICS.

PROFESSOR CHRYSTAL.

CHARLES TWEEDIE, M.A., B.Sc., *Lecturer.*

For Synopses of Lectures, see under Faculty of Arts.

II. NATURAL PHILOSOPHY.

PROFESSOR TAIT.

For Synopsis of Lectures, see under Faculty of Arts.

III. CHEMISTRY.

PROFESSOR CRUM BROWN.

For Synopsis of Courses, see under Faculty of Medicine.

IV. DRAWING AND MENSURATION.

W. HUME KERR, M.A., B.Sc., *Lecturer.*

CLASS OF DRAWING (GEOMETRICAL, ENGINEERING, AND ARCHITECTURAL), AND OF MENSURATION.—Students may attend at any time between 10 A.M. and 2 P.M. each day.

All Students are recommended to take the Classes in Engineering and Drawing together.

The Class in Drawing may also be attended with advantage by those who propose subsequently to attend the Class in Engineering, as Students should be able to readily understand mechanical diagrams, and to apply the graphic methods of calculation frequently employed by Engineers. The Class will

be found useful also to those who propose to become architects or surveyors.

A course of instruction has been specially arranged to meet the requirements for the Degree of B.Sc. in Public Health.

SYNOPSES.

1. *Ordinary Class.*

The work is arranged so as to form a two-years' Course, and will consist of Lectures and Practical Instruction in Drawing. The Courses are described as "Junior" and "Senior"; and, though not imperative, it is desirable that they should be taken in their natural order.

Junior Course:—Plane Geometrical Drawing—Construction of Curves—Design of Toothed Wheels and Gearing—Graphic Methods of determining Stress in Structures—*Loci* of Points in Link-work—Diagrams of Velocity, Acceleration, and Energy.

Senior Course:—Solid Geometry—Interpenetration and Development of Surfaces and Solids—Isometric Projection—Perspective—Structural and Machine Drawing—Rough Sketching of Machines, &c., and the Preparation therefrom of Working Drawings—Design of Structures in Masonry, Timber, Steel, and Iron. Roofs, Bridges, Skew Arches, &c.—General Machine Design.—(Course for Session 1898-99.)

2. *Special Class for Public Health Students.*

The Course will include the following subjects:—Scales and their Uses—Estimation of Areas and Volumes—Elements of Plane and Solid Geometry, and their application to the making of Structural Drawings from Models and Figured Sketches.

V. ENGINEERING.

PROFESSOR ARMSTRONG.

Winter Session.

I. CLASS OF ENGINEERING.—The object of the Course will be to show the practical application of Science to some branches of Engineering. The Lectures, combined with Laboratory instruction, will form a Two Years' Course, so arranged that Students can enter the Class at the beginning of either year.

The following are the subdivisions of the complete Course, a part only of each subdivision being dealt with each year :—

1. Applied Mechanics; 2. One Branch of Civil Engineering; 3. One Branch of Mechanical Engineering; 4. Examples of the Application of Machinery to Manufacturing Purposes; 5. Laboratory instruction in connection with one of the foregoing.

Synopsis of the Course for the present Session :—

A.

1. Equilibrium and stability of frames, ribs, and linear arches.

2. Application of mechanical principles to combined structures, especially to roofs and bridges.

3. Nature, fitness, and strength of structural materials; stretching, crushing, bending, and twisting.

4. Earthwork and masonry: retaining walls and masonry arches.

5. Locomotive Engines.

6. Machine Design.

B.

7. Testing machines and apparatus, and the testing of structural materials, with Laboratory Demonstrations, under the superintendence of the Professor.

Four Examinations are held during the Session; and each week, unless there be an Examination, a problem paper is set to be worked at home. The questions proposed are such as are met with in the practice of Engineering; and the answers, being returned to the Students annotated and corrected, form a body of Examples for subsequent reference.

There is also a Tutorial Class held weekly, at which the questions set in the problem paper of the previous week are discussed and explained.

Engineering Works and Factories are, from time to time, visited by the Class, under the direction of the Professor.

The attention of Students proposing to follow the foregoing Course is specially directed to the following Class (II.), one attendance at which, though optional, is strongly recommended.

II. ADDITIONAL CLASS. — A short preliminary course in General Mechanics is given, *without additional fee*, for the benefit of those entering the Class of Systematic Engineering with an imperfect knowledge of Mechanical principles. This Class, taught by an assistant, will meet five days a week for about a month, commencing on the same day as the General Science Classes open.

III. A COURSE OF INSTRUCTION (Theoretical and Practical) IN SANITARY ENGINEERING AND BUILDING CONSTRUCTION, designed for Candidates for Degrees in Public Health, consisting of about fifty Lectures.

IV. THE FULTON ENGINEERING LABORATORY.—Students here receive practical instruction in the processes employed by the Engineer in the experimental determination of the physical and economical constants of materials, machines, and prime movers, and in the practical application of electricity.

Summer Session.

V. ENGINEERING FIELD-WORK.—A course of Practical Instruction in Surveying, Levelling, Setting Out, and Calculation of Quantities, is given in alternate years.

The Course consists of lectures, and of practical work, as undertaken in the field and in the office, and occupies the whole of each day for about three weeks. The hours of instruction thus correspond to an ordinary Course extending over a much longer period. The Class will be next held in summer 1899.

Course of Study.

The following course is recommended for Students preparing for the Degree of B.Sc. in Engineering :—

1st Year. — Mathematics [Intermediate Honours Class

(Winter), or Advanced Class (Summer)], Geometrical Drawing and Graphics, Chemistry (or Natural Philosophy), Engineering Field-Work (Summer Session).

2nd Year. — Engineering and Natural Philosophy (or Chemistry), Laboratory (Chemical or Physical), Engineering, Engineering and Mechanical Drawing.

3rd Year.—Natural Philosophy (Advanced Class), Engineering, Optional Course.

In some cases a modification of the above may be desirable.

The Engineering Field-Work Class may be taken during whichever of the Summers it is held.

VI. DYNAMICS.

C. G. KNOTT, D.Sc., *Lecturer.*

As a preparation for the Course described below, Students of Engineering are advised to take the Summer Half-Course on *Elementary Dynamics*, either before or after passing the First B.Sc. Examination in Natural Philosophy. For Synopsis, see Courses in Faculty of Arts.

The Advanced Science Course on Dynamics, of fifty Lectures, by the Lecturer on Applied Mathematics, is adapted for Engineering Students. In the treatment of the subject practical applications and, in particular, graphical methods of solution will receive attention ; while the simpler processes only of the differential and integral calculus will be used. The Course will include the Kinematics, Kinetics, and Statics, of particles, rigid solids, flexible cords, and perfect fluids ; and the more elementary parts of Strains and Elasticity.

Books recommended. — The simpler sections of Tait's "*Dynamics*" ; Rankine's *Applied Mechanics*.

VII. GEOLOGY AND MINERALOGY.

PROFESSOR JAMES GEIKIE.

For Synopsis of Lectures, see Summer Course under Pure Science.

II.—PUBLIC HEALTH.

I. LABORATORY WORK.

PROFESSOR SIR HENRY D. LITTLEJOHN.

See Schedules, pages 244-246.

II. CLINICAL INSTRUCTION regarding Fevers and Infectious Diseases during three months in a recognised Hospital.

III. INSTRUCTION IN MENSURATION AND DRAWING.

W. HUME KERR, M.A., B.Sc., *Lecturer.*

See under Engineering.

Special Course by Professor Armstrong in Sanitary Engineering and Drawing, see under Engineering.

IV. PHYSICS.

PROFESSOR TAIT.

CARGILL G. KNOTT, D.Sc., *Lecturer.*

For Synopses, see under Faculties of Arts and Medicine.

V. GEOLOGY.

PROFESSOR GEIKIE.

For Synopses of Courses, see under Pure Science.

VI. PUBLIC HEALTH.

(*a*) PRACTICAL SANITATION, SANITATION, AND HYGIENE.

PROFESSOR SIR HENRY D. LITTLEJOHN.

For Synopsis of Courses, see under Faculty of Medicine.

(*b*) SANITARY ENGINEERING, BUILDING CONSTRUCTION, ETC.

PROFESSOR ARMSTRONG.

Special Course, see under Engineering.

III.—AGRICULTURE.

I*a*. MATHEMATICS.

PROFESSOR CHRYSTAL.

CHARLES TWEEDIE, M.A., B.Sc., *Lecturer.*

Senior Classes, as for M.A. Synopses, see Faculty of Arts.

I*b*. ZOOLOGY.

PROFESSOR EWART.

For Synopsis of Lectures, see under Faculty of Medicine.

I*c*. BOTANY.

PROFESSOR BALFOUR.

For Synopsis of Lectures, see under Faculty of Medicine.

II. NATURAL PHILOSOPHY.

PROFESSOR TAIT.

For Synopsis of Lectures, see under Faculty of Arts.

III. CHEMISTRY.

PROFESSOR CRUM BROWN.

For Synopsis of Lectures, see under Faculty of Medicine.

IV. AGRICULTURE AND RURAL ECONOMY.

PROFESSOR WALLACE.

1. *Definition of Agriculture.*—Aid given by the Allied Sciences.

2. *Surface Geology.*—Formation and Classification of Soils—their Physical and Chemical Properties. Importance of Organic Nitrogen. Fixation of free Nitrogen. Indications of good or bad Soils—Methods of Management and Improvement.

3. *Drainage.*—Its Practice and Advantages—Irrigation—Wet-Warping—Mixing or Top-Dressing—Claying—Marling—Chalking—Liming—Paring and Burning—Clay-Burning. The Effect on Soils of Cultivation and the Growth of Plants.

4. *Implements and Machines of the Farm.*—Importance of their proper Construction and careful Management.

5. *Steam Cultivation.*—Advantages and Disadvantages.

6. *Motive Powers Employed on the Farm.*—1st, Man; 2nd, Horse; 3rd, Mechanical Powers (Water, Wind, Steam)—their Values and Advantages.

7. *Farm Servants.*—Labour and Wages—Day-work and Piece-work. Detailed and total costs of Horse and Hand Labour.

8. *Importance of Rotations.*—Different Rotations and reasons why they are adopted—Systems of Farming.

9. *Our Farm Crops* (including Grain, Root, Forage, and Hay Crops).—Selection and Cultivation. Prevention of Diseases.

10. *Identification of Grasses and Valuable Pasture Plants.*—Their Characteristics and Habits—Detection of Adulterations of Seeds—Regulations to protect Farmers in buying Seeds.

11. *The Management of Permanent Pasture.*—Proper Methods of making new Pasture—its After-treatment.

12. *Weeds in Pastures* and Means of Destroying them.

13. *Silage and the System of Ensilage.*—Its Advantages, &c.—Its Suitability and Unsuitability according to Locality.

14. *Manures.*—Farm-yard Manure—Mixing, Storing, and Application—great advantage as a General Manure. Special Manures and so-called Artificials—Times and Methods of their Application. Utilization of Liquid Manure and Town Sewage.

15. *Buildings and Fences.*—Construction of Fences—General Arrangement of Farm-Buildings—best Flooring and Inside Plans and Dimensions of Byres, Cattle-Sheds, Stables, &c.—Covered Yards—Ventilation—Drainage.

16. *Live-Stock.*—Cattle, Pigs, Horses, Sheep, Poultry—Breeds of each, and suitability to Local Conditions—"Principles of Breeding." Feeding and Management—Mixtures of Food. Cost of Producing a Stone of Beef, Mutton, and Pork, showing Profit.

17. *Dairying in all its Branches*, including the suitability of surrounding Conditions—Classes of Dairy Stock, and their Management—Treatment of Milk, its Sale, its Manufacture into Cheese, Butter, &c.

18. *Feeding Stuffs.*—Suitability of Common Food Substances to different Classes of Farm Stock—Purchase and disposal of the same—their Manurial Residues.

Text-Books.—Wallace's "Farm Live Stock of Great Britain," M'Connell's "Note-Book of Agricultural Facts and Figures," Fream's "Elements of Agriculture," "Rothamsted Experiments," and "Soils and their Properties."

Students are requested to consult the Professor at the beginning of the Session as to their plan of work.

Periodical visits will be made to suitable Farms. A Medal may be given for the best report on these excursions.

V. AGRICULTURAL CHEMISTRY.

A. PEEBLES AITKEN, D.Sc., *Lecturer.*

The Course comprises Lectures, Demonstrations, and Laboratory work :—

1. *The Atmosphere.*—The relation of its constituents to plant life—rain, dew, fog, and hoar frost, their causes and effects.

2. *Soils.*—Origin and formation—physical and chemical processes included in the term "weathering"—inorganic and organic constituents of soils—essential elements of fertility—work of living organisms in the soil—decay and putrefaction of vegetable matter—formation of humus—nitrification—relation

of soils to air and moisture—capillarity—absorption of salts by soils—lysimetry—circumstances affecting the composition of drainage water—amelioration of soils by physical and chemical means—classification, investigation, and analysis of soils.

3. *Plants.*—Mineral and organic constituents of plants—their transformations and translocations during the life of plants from germination to maturity—respiration, transpiration, and assimilation—plant nutrition, and the specific effects of nutritive substances upon the growth and development of plants—water culture and other methods of investigating plant nutrition—meteorological conditions affecting the health and vigour of plants—sources whence plants derive their nitrogenous constituents—symbiosis—analysis of vegetable substances.

4. *Manures.*—Their classification, composition, and characteristics—specific action and suitability for different soils, climates, and crops—economic use, and the principles regulating their application—methods of conducting manurial experiments—analysis and investigation of manures—valuation of manures, and of unexhausted fertility.

5. *Crops.*—Their composition and classification—fodder crops, their relative value as food—external conditions affecting their nutritive value, preservation, and digestibility—theory of rotations—crop residues and their relation to the fertility of the soil.

6. *Animal Nutrition.*—Chief constituents of the animal body—respiration—digestion—influence of diet on the growth and health of animals—laws of flesh and fat production, and relation of food to work—nutrient ratio as a guide to feeding—animal waste—relation of food to manure—external conditions affecting the health and growth of animals—preparation of fodder—analysis and investigation of feeding stuffs.

7. *Dairy Produce.*—Composition of milk—its physical characters—diseases and sophistications to which it is liable—characteristics of its ingredients—its analysis—butter and cheese—their composition, sophistication, and analysis—scientific aspects of dairy management.

VI. GEOLOGY.

PROFESSOR GEIKIE.

For Summer and Winter Courses, see under Pure Science.

VII. VETERINARY HYGIENE.

Lectures of recognised teachers of the subject.

VIII. AGRICULTURAL ENTOMOLOGY.

Course of twenty Lectures and Laboratory Demonstrations.

W. FREAM, LL.D., B.Sc., *Steven Lecturer.*

(*Free to Present and Past Students of the Agriculture Class.*)

Position of Insects in the Animal Kingdom.

Morphology and physiology of Insects, particularly in so far as such knowledge is useful in baffling attacks of insect pests. Structural modifications of the mouth, legs, and wings.

Life-history of Insects.

General principle that where the life history involves a series or cycle of changes, the measures of suppression should be directed against the weakest link in the chain. Illustrations.

Methods of insect attack, and enormous losses consequent thereon. Incidentally:—(*a*) Stage in the life-history of the insect at which it becomes actively injurious. (*b*) Period in the growth of the crop when insect injury begins. (*c*) Organs of the plant which are attacked.

Methods of *prevention*, as distinguished from *remedy*.

General methods of prevention or remedy, as distinguished from *special*. The former are, in the main, agricultural. The latter usually involve the application of specific insecticides, or the subjection of the crop to treatment distinct from ordinary agricultural operations.

Insecticides : composition and properties of the more important. Methods of application.

Mechanical appliances for the distribution of insecticides.

Inter-relationship of economic entomology and systematic botany.

Natural enemies of insects ; particularly (*a*) insectivorous mammals and birds, (*b*) other insects, (*c*) parasites.

Classification of insects, directed especially to the means of identifying injurious insects in their several stages.

Characters of the natural orders of insects illustrated by genera which furnish destructive species.

Special discussion of the natural orders Coleoptera, Hymenoptera, Lepidoptera, Homoptera, and Diptera.

Convenient groupings of insects—(*a*) According to crop attacked ; (*b*) According to mode of attack.

Detailed discussion of insects injurious to crops and to live stock in Britain, with methods of prevention and remedy :—*inter alia*—Wireworms, weevils, turnip-flies, bark beetles, thrips, saw-flies, sirices, surface-caterpillars, winter moths, codlin-moths, goat-moths, leopard-moths, magpie-moths, cabbage butterflies, aphides, scale-insects, mangel-flies, cabbage-flies, onion-flies, Hessian flies, wheat-midges, gout-flies, frit-flies, celery-flies, leather-jackets, ox-warble-flies, sheep's-nostril-flies, gad-flies. Other pests, outside the class Insecta :—as millepedes, arachnids, eelworms.

Present position of Agricultural Entomology in Britain, &c., and remarkable advances made during recent years. The course is profusely illustrated by carefully prepared natural specimens, the characters of which are demonstrated by the Lecturer. The instruction is further facilitated by a unique set of special coloured diagrams, from the pencil of Miss Ormerod.

IX. ECONOMIC SCIENCE AS APPLIED TO AGRICULTURE.

PROFESSOR NICHOLSON.

Lectures up to Christmas, see under Faculty of Arts.

X. (*a.*) FORESTRY.

COLONEL BAILEY, *Lecturer.*

Five days a week, at 10 A.M., during Winter.

1. *Principles of Sylviculture.*—On the general lines of Dr Schlich's "Manual of Forestry," vol. i.

2. *Formation and Tending of Woods.*—On the general lines of Dr Schlich's "Manual of Forestry," vol. ii.

3. *Protection of Standing Woods.*—Draining; fencing; cold winds and storms; fires; mammals and birds; insects; diseases; weeds; frost and drought; rain, hail, snow and rime; wounds.

4. *Timber.*—Its structure, characteristics, and identification; relative form and size of stem, branches and roots; physical properties; seasoning; defects and unsoundness; durability.

5. *Utilisation of Produce.*—Uses of wood; felling; conversion; measurement and sale; transport; harvesting of bark; fodder, fruits, and litter; impregnation; charcoal.

6. *Working Plans.*—General principles.

7. *Uses and Effects of Forests.*—Direct uses; indirect effects—effects on temperature and moisture, mechanical effects.

8. *Forestry in Scotland.*—General considerations; the financial question.

X. (*b.*) EXPERIMENTAL PHYSICS.

PROFESSOR TAIT.

Full Laboratory Course, see under Faculty of Arts.

X. (*c.*) ENGINEERING.

PROFESSOR ARMSTRONG.

See Winter Course, under Graduation in Engineering.

Graduation in Science.

I.—PURE SCIENCE.

Regulations and Curricula for Degrees in Pure Science.

Candidates who began attendance on qualifying Science Classes before 1st October 1892, *are referred to the Calendar for* 1895-96 *or previous Calendars.*

N.B.—Figures within brackets refer to the Sections of Ordinance No. 12.

[I.] Two Degrees in Science are conferred by the University of Edinburgh, viz.:—Bachelor of Science (B.Sc.) and Doctor of Science (D.Sc.). These degrees are given in Pure Science and in Applied Science.

I.—Preliminary Examination.

The Preliminary Examinations in General Education are held in the Examination Hall in the University, in autumn and spring. (Time-Table, pages 118-121.)

Candidates may obtain Schedules at the Matriculation Office on and after 6th September 1898 and on and after 15th February 1899. The Schedules must be completed and lodged along with the Fees not later than 16th September 1898 and 1st March 1899 for the Autumn and Spring Examinations respectively.

Fee, 10s. 6d. for each appearance.

Candidates may pay the Fees personally, or transmit them to T. Gilbert, University, Edinburgh, by *Post Office* or *Postal Orders*, or by *Bank Drafts* crossed Union Bank of Scotland (Hunter Square Branch), Edinburgh, but not by cheques on private accounts. When names are not entered and Fees paid, or a Pass to the Examination obtained where the fee has been previously paid, on or before the stated dates, an additional or late entry fee of 10s. must be paid before the Candidate can be admitted to Examination. This fee will not be received after twelve o'clock of the last day but one preceding the Examination for which the Candidate desires to appear, without the express permission of the Dean of his Faculty and the subsequent sanction of the Senatus. A Candidate must enter his Name and pay the Fee, or, when the Fee has been previously paid, obtain a Pass, for each periodical Examination at which he desires to appear.

[II.] 1. Candidates before entering on the Curriculum must, unless exempted, pass a Preliminary Examination in the following subjects:[1]—

(1.) English.

[1] See section 5, and also additional Regulations of Joint Board of Examiners, pages 427-432.

(2.) One of the following:—Latin, Greek, French, or German.
(3.) Mathematics.
(4.) One of the following:—Latin, Greek, French, or German (if not already taken), Italian, or such other language as the Senatus may approve,[1] Dynamics.

2. *English* includes Grammar and Composition, and the Outlines of Geography and British History, the standard being that presently adopted for the Higher Grade Leaving Certificate of the Scottish Education Department.
3. *Latin* and *Greek* comprise grammatical questions, translations into English from Latin or Greek authors, not previously prescribed, and translations of plain passages or easy sentences from English into Latin or Greek. The standard is that presently adopted for the Lower Grade Leaving Certificate.
4. *French*, *German*, and *Italian* comprise grammatical, literary, and easy philological questions, translation into English from French, German, or Italian authors, not previously prescribed, and translations from English into French, German, or Italian. The standard is that presently adopted for the Higher Grade Leaving Certificate of the Scottish Education Department.
5. *Mathematics*—A student, who, having passed the Arts Preliminary Examination, has thereafter obtained a certificate of attendance on a qualifying class of Mathematics, will not be required to pass any further examination in Mathematics as a condition of entering on the course of study for graduation in Science.
6. Candidates may take Mathematics on the intermediate standard instead of on the higher standard,[2] provided they also take an additional modern language on the standard of the Preliminary Examination for Degrees in Medicine, as a fifth subject.

Mathematics on the intermediate standard comprises Mathematics on the lower standard—viz., (1) Arithmetic, including Vulgar and Decimal Fractions, Proportion, Percentage, Square Root, Simple Interest; (2) Algebra, including Fractions, Factors, Square Root, Equations of the First Degree, Simultaneous Equations of the First Degree, Easy Quadratic Equations, Problems leading to the above Equations; (3) Geometry—Euclid, Books I., II., and III. (or their equivalents), with easy deductions; and also (*a*) Euclid; Book VI., Propositions 1-19, or Geometry equivalent thereto. (*b*) Algebra; Quadratic Equations, Ratio and Proportion. (*c*) The Trigonometry of Right-angled Triangles.

No Candidate will be entitled to profess Mathematics, Natural

[1] Any Candidate who proposes to be examined in a language other than those above named, is required to apply to the Senatus for approval before 1st February or 1st July for the Spring and Autumn Examinations respectively.

[2] This does not apply to graduation in Engineering.

Philosophy, or Astronomy at the Final Science Examination, unless he has passed the Preliminary Examination in Mathematics on the higher standard.

Mathematics on the higher standard comprises Mathematics on the lower standard as above, and Books IV., VI., and the first twenty-one propositions of Book XI. (or their equivalents), with deductions, Quadratic Equations, Trigonometry to the solution of Triangles inclusive, and the use of Logarithmic Tables.

7. *Dynamics* includes Elementary Statics and Kinetics of Solids, Liquids, and Gases.
8. A Candidate must pass in all the required subjects at one or not more than two Examinations, provided that he may offer himself for re-examination, as often as may be necessary, to satisfy this condition.
9. Attendance on any Science Class in Pure Science will not qualify for Graduation unless the whole Preliminary Examination has been previously passed.

II.—Degree of B.Sc. in Pure Science.

[III.[1]] 1. Candidates for the Degree of B.Sc. must, in the course of not less than three Academical years (*i.e.* three Winter Sessions, or two Winter Sessions, and three Summer Sessions), attend at least seven courses of instruction in the subjects included in the Science Examination which they purpose to undergo.

2. Three of these Courses must be in subjects prescribed for the First Science Examination, and four must be in subjects prescribed for the Final Science Examination.

[IV.] 3. Four of the seven Courses must be taken in the University of Edinburgh. The remaining three Courses may be taken at this University or at other Universities or Institutions approved by the University Court, or under teachers recognised by the University Court for purposes of Graduation in Science, provided that the fees for attendance at an approved Institution or under a recognised teacher in Edinburgh, shall in all cases not be less than the fees exigible for the corresponding Courses in the University of Edinburgh.[2]

[V.] 4. Every Candidate for a Degree in Science must produce his Matriculation Ticket for the year in which he appears for Examination or Graduation.

5. All Candidates, not Matriculated Students of this University, availing themselves of the permission to attend Lectures at approved Institutions or by recognised teachers in Edinburgh,

1 Figures within brackets refer to the Sections of Ordinance, No. 12.

2 Only Institutions and Teachers with the necessary staff and appliances for Theoretical and Practical Instruction in Science will be recognised by the University. A List of Universities and Institutions at present recognised in terms of this regulation is given on pages 123 and 124.

must, at the commencement of each year of such attendance, enrol their names at the Matriculation office, paying a fee of the same amount as the Matriculation Fee, and having, in respect of such payment, a right to the use of the University Library.

[XVII.] 6. A Student who before October 1892 has completed a part of his course of study with a view to Graduation in Science under regulations in force at the time in this University, and shall thereafter complete his course of study and pass the necessary Examinations in conformity with such regulations, or with those now in force, may become a Candidate for the Degree of B.Sc.

7. Candidates for Graduation who have previously passed the Examinations are required to intimate to the Clerk to the Senatus their intention to graduate, and pay the Registration fee at least ten days before the date of Graduation. Those whose Examinations are not then completed are required to give such intimation at the earliest possible date, and at latest one clear day before the day of Graduation.

UNIVERSITIES AND INSTITUTIONS AT PRESENT RECOGNISED IN TERMS OF REGULATION II. 3.

The Universities of St Andrews, Glasgow, Aberdeen, Oxford, Cambridge, Dublin, and Victoria University, Manchester. Heriot-Watt College:—Mechanics and Physics, as equivalent to one course in Natural Philosophy, qualifying for the first B.Sc. examination in Pure Science; Engineering, and Agriculture, Advanced Chemistry and Chemical Laboratory, as qualifying for the final B.Sc. examination; Electricity (Pure and Applied), Engineering, Laboratory Practice (Mechanical or Electrical), as qualifying for the degree of B.Sc. in Engineering. The Glasgow and West of Scotland Technical College; University College, Dundee; University College, London; King's College, London; The Royal Colleges of Science, South Kensington; The Owens College, Manchester; The Mason College, Birmingham; The College of Science, Newcastle-on-Tyne; The Yorkshire College of Science, Leeds; University College, Bristol; University College, Liverpool; The Firth College, Sheffield; University College, Nottingham; The University College of North Wales, Bangor; University College of Wales, Aberystwith; The University College of South Wales and Monmouthshire; The Engineering College, Cooper's Hill. The Queen's College, Belfast; The Queen's College, Cork; The Queen's College, Galway; The College of Science, Stephen's Green, Dublin; The School of Mines, Dublin; The Royal Agricultural College, Cirencester; The College of Agriculture, Downton; and the Veterinary Colleges of the United Kingdom.—The Presidency Colleges in Calcutta, Madras, and Bombay. The Thomasson Engineering College, and the Engineering College,

Poona. M'Gill University, Montreal; The University College of Toronto; Queen's University, Kingston, Ontario; The University of Sydney; The University of Melbourne; The University of Adelaide; Wellington College; The University of New Zealand; The University of Otago; Dalhousie College, Halifax, Nova Scotia; Stellenbosch College, South Africa. The University of Harvard; The University of Yale; The Johns Hopkins University. The Universities, and Polytechnic Schools supported and regulated or recognised by the governments of the respective Countries of Europe.

EXAMINATIONS.

Degree of Bachelor of Science.

For the Degree of B.Sc. there are two Examinations, conducted by written questions, as well as orally and practically.

(*a.*) *First Science Examination.*

[VIII.] 1. The First Examination for the Degree of B.Sc. is as to the general knowledge of the Candidate on the following subjects:—

(i.) Mathematics, or Biology (*i.e.* Zoology and Botany).
(ii.) Natural Philosophy.
(iii.) Chemistry.

2. The Examination in these subjects is the same as for the ordinary degree of Master of Arts. [The First Professional Examination (Medicine) in Zoology and Botany is not accepted as equivalent.]

3. Candidates may present themselves in any one or more of these subjects at any Examination held after they have attended a full course in the subject or subjects professed.

(*b.*) *Second Science Examination.*

[IX.] 1. The Second B.Sc. Examination is on a higher standard in any three or more of the following subjects:—

(1) Mathematics.
(2) Natural Philosophy.
(3) Astronomy.
(4) Chemistry.
(5) Human Anatomy, including Anthropology.
(6) Physiology, including Histology and Physiological Chemistry.
(7) Geology, including Mineralogy.
(8) Zoology, including Comparative Anatomy.
(9) Botany, including Vegetable Physiology.

2. The standard of this Examination is as nearly as possible equivalent to that of the Examination for the Degree of M.A. with Honours, where the subjects are different: and where the subjects are the same the examination is identical.

3. A subject already taken for the First Examination may be taken also for the Second Examination.

4. Candidates presenting themselves for the Second Examination must have attended four full courses of higher instruction, including practical or laboratory work, in the Subjects professed. [See below.]

5. The Second Science Examination cannot be taken sooner than one year after the Candidate has passed the First Science Examination.

[X.] 6. If a student, before passing the Preliminary Examination has attended a class qualifying for graduation, the Senatus may, on special cause shown, permit him to count such class for examination, on condition of his passing the full Preliminary Examination within such time as the Senatus may appoint.

[XI.] 7. A Candidate for the degree of B.Sc. is not deemed to have attended a class as part of the curriculum for that degree unless he presents a certificate bearing not only that he has given regular attendance, but also that he has duly performed the work of the class.

[XII.] 8. The Examiners for the degree of B.Sc. have power to report that a Candidate has passed with special distinction in one or more of the subjects professed by him: and in such case a Diploma is given setting forth the subjects in respect of which the degree has been granted, and the subject or subjects in which special distinction has been obtained.

9. A Candidate who has passed the First and Second Science Examinations, and otherwise complied with the regulations for Graduation, will be recommended to the Senatus for the Degree of B.Sc.

Courses for Final Examination in Pure Science.

In Mathematics and Natural Philosophy the Examination is the same as for Honours in Arts. In each of the other subjects professed, two written papers are set, namely, a *first* and a *second* paper; and the Practical and Oral Examinations also consist of *first* and *second* parts. The second part of the Examination is of a higher standard than the first. Candidates must pass the first section of the Examination (as well written as practical and oral) in all the subjects professed. They must also pass the second section in at least one of their subjects. The following Courses of Higher Instruction in this University, (1) Intermediate and (2) Advanced, qualify for the first and second stages of the Final Examination in Pure Science:—

1. Mathematics: (1) *Intermediate Course*, as for Honours in Arts. (2) *Advanced Course*, as for Honours in Arts.

2. Natural Philosophy: (1) *Intermediate* Mathematical, (2) *Advanced* Mathematical, *Advanced* Experimental, or *Special* Laboratory Course.

3. Astronomy: (1) *Intermediate Course:* Winter Lecture Course, including Practical work, (2) *Advanced Course* of Practical Instruction at the Observatory.

4. Chemistry: (1) *Intermediate Course:* One Winter Course, or two Summer Courses in the Laboratory, and a Lecture Course on Organic

Chemistry. (2) *Advanced Course:* Further Laboratory Work and one additional Lecture Course.

5. Human Anatomy, including Anthropology: (1) *Intermediate Course:* Six months' Lectures on Systematic Anatomy (Winter Session), with six months' Practical Anatomy. (2) *Advanced Course:* Course of Anthropology.

6. Physiology: (1) *Intermediate Course:* Six months' Lecture Course (Winter Session) and Practical Work (Winter or Summer Session). (2) *Advanced Course:* Laboratory Work (Winter Session).

7. Geology, including Mineralogy: (1) *Intermediate Course:* Winter Lecture Course and Practical Class. (2) *Advanced Course:* Laboratory Work, or Advanced Lecture Course—either Petrology or Mineralogy and Crystallography.

8. Zoology, including Comparative Anatomy: (1) *Intermediate Course:* Six months' Course, including Lectures on Invertebrate Zoology, and on Embryology, with Laboratory Work. (2) *Advanced Course:* Six months' Course on the Morphology of the Invertebrata and Vertebrata, and Laboratory Work.

9. Botany, including Vegetable Physiology: (1) *Intermediate Course:* Six months' work in Laboratory. (2) *Advanced Course:* Laboratory Work, with one or more Lecture Courses.

Degree of Doctor of Science.

1. Graduates of this University who have held the Degree of B.Sc. for five years may offer themselves for the Degree of D.Sc. Candidates must profess one of the following branches of Science:—Mathematics; Natural Philosophy; Astronomy; Chemistry; Human Anatomy, including Anthropology; Physiology, including Histology; Geology, including Mineralogy; Zoology, including Comparative Anatomy; Botany, including Vegetable Physiology; and in this they will be expected to show a thorough knowledge.

2. Masters of Arts of this University with first or second class honours in Mathematics and Natural Philosophy under the conditions prescribed by the present Regulations for Degrees in Arts, or under the Regulations previously in force in this University, may offer themselves for the degree of D.Sc. after the expiry of five years from the date of their graduation in Arts, under the same conditions as if they held the degree of B.Sc.

3. Research Students within the meaning of the Regulations for the Encouragement of Special Study and Research and for the appointment of Research Fellows, may offer themselves for the degree of D.Sc. of the University in which they have prosecuted some special study or research, although they have not taken the degree of B.Sc. or the degree of M.A. with honours as aforesaid, in that University; provided—

(1) That they hold the degree of Bachelor of Science or Bachelor of Medicine of a Scottish or any recognised University, or a

degree of any such University, which the Senatus shall hold equivalent to the degree of B.Sc. or to the degree of M.A. with first or second class honours in Mathematics and Natural Philosophy ; provided that Candidates who hold any such degree from a University outside the United Kingdom may be required, if the Senatus think fit, before beginning their course as Research Students with a view to the degree of D.Sc., to pass an examination equivalent to an Honours or to a Final Science examination in a group of subjects cognate to their line of work as Research Students.

(2) That they have spent not less than two winter sessions or an equivalent period as Research Students in the University granting the degree, and that they produce evidence of satisfactory progress in the special study or research undertaken by them during that period.

(3) That a period of not less than five years shall have elapsed from the date of the graduation required in sub-section (1) of this section.

4. All Candidates for the degree of D.Sc. shall present a Thesis or a published Memoir or Work, to be approved by the Senatus on the recommendation of the Faculty of Science ; provided that, if required by the Senatus, the Candidate shall also be bound to pass such an examination conducted orally or practically, or by written papers, or by all of these methods, on the subjects of his special study or of his Thesis, as may from time to time be determined. The Thesis shall be a record of original research undertaken by the Candidate, and shall be accompanied by a Declaration, signed by him, that the work has been done and the Thesis composed by himself.

The Thesis must be lodged with the *Dean of the Faculty of Science* and the fees paid on or before 1st December.

5. Notwithstanding and in supplement of the Regulations as to Examinations, the Senatus Academicus shall appoint such Professors or Lecturers as it may think suitable to conduct the examination of candidates who may offer themselves for the degree of D.Sc., and the University Court shall, after consultation with the Senatus Academicus, appoint an additional Examiner to act along with them. Such additional Examiner shall be a person of recognised eminence in the subject of the thesis, or memoir, or work which is to be submitted for approval. The result of the examination shall be reported to the appropriate Faculty or Committee of Senatus.

6. The degree of D.Sc. shall in no case be conferred on persons who have not satisfied the conditions hereinbefore set forth, and shall not be conferred *honoris causa tantum*.

7. The fee for examination for D.Sc. is £10, 10s. ; for re-examination, £5, 5s.

Regulations for Special Study and Research and for Appointment of Research Fellows.

I. The Senatus, with the approval of the University Court, may make regulations under which graduates of Scottish Universities, or of other Universities recognised by the University Court, or other persons who have given satisfactory proof of general education and of fitness to engage in some special study or research, may be admitted to prosecute such study or research in the University.

II. It is the duty of the Senatus in each University—

(1) To receive and decide upon all applications for admission to prosecute special study or research.

(2) To prepare a list of all persons admitted as Research Students.

(3) To make regulations for the supervision of their work.

(4) To satisfy themselves from time to time that the Research Students are carrying on their work in a satisfactory manner.

(5) To suspend or exclude from any course any student whose conduct or progress is unsatisfactory.

III. Every applicant must send in to the Senatus a written application stating any degree or other distinction he has obtained, the line of study or research he wishes to prosecute and the probable period of its duration, together with evidence as to his character, capacity, and general qualifications.

IV. Any application shall be in the first instance referred by the Senatus to the appropriate Faculty, or to a Committee appointed by the Senatus; one member of the Committee shall always be a Professor or Lecturer within whose department the proposed line of study or research falls. No applicant shall be recommended by the Faculty or the Committee who has not satisfied them by examination or otherwise that he is qualified to prosecute the proposed line of study or research, and further—

(*a*) That his proposed line of study or research is fit and proper;

(*b*) That he possesses a good general education;

(*c*) That he is of good character;

(*d*) That he proposes to prosecute his studies or research during a period to be approved by the Senatus.

The Faculty or the Committee shall report to the Senatus on each application. It shall also be their duty, subject to the regulations of the Senatus, to provide for the supervision of the Research Student's work, and to report at least once a year to the Senatus as to his progress and conduct. The Senatus shall then determine whether he shall remain a Research Student.

V. Every Research Student shall be required to matriculate each year, paying the ordinary fee.

VI. Research Students have the use of the University Laboratories and Museums, under such conditions as the University Court, after consultation with the Senatus, may determine.

VII. The title of Research Fellow may be conferred by the Senatus with the approval of the University Court, on Research Students who have shown special distinction. Such title shall not of itself confer any right to stipend, but it shall be in the power of the University Court to provide a stipend of such amount and for such period as it may think fit to any Research Fellow.

VIII. (1) The Research Fellows shall be appointed after consideration of the report or reports submitted in terms of Section IV.

(2) The title of Research Fellow may be conferred at the commencement of the Research Student's course of study or research, or at any time during its progress, as the Senatus may determine.

(3) Research Fellows shall retain their title and stipend, if any, for the period during which they are engaged in special study or research in the University, and no longer.

(4) Research Students who have been appointed Research Fellows shall continue subject to the above conditions as to the supervision of their work and the reports to be made thereon.

IX. Nothing herein contained shall prejudice the right of Research Students to such Fellowships, Scholarships, or Prizes as may be open to them by Ordinance or Deed of Foundation.

X. The University Court may provide such sums as it may think fit in aid of the expenses of Special Study or Research.

Regulations for the Graduation of Women and for their Instruction.

excerpts from ordinance no. 18 (general no. 9).

1. It shall be in the power of the University Court to admit women to graduation.

2. The conditions for graduation shall be the same for women as for men, subject to the following modifications, which shall have effect until provision is made for the instruction of women in all subjects qualifying for graduation, in which provision is made for the instruction of men :—

Section 3 of the Regulations for Degrees in Science shall not be applicable to the graduation of women in Science, so long as within the Faculty provision is not made for the instruction of women in any subject qualifying for graduation in which provision is made for the instruction of men, and it shall be in the power of the University Court to admit to graduation women who have received the requisite instruction in that subject in any other Universities or Institutions approved by the University Court, or under teachers recognised by the University Court for purposes of Graduation in Science: Provided always that every candidate for graduation shall produce evidence of having satisfied the conditions with respect to the Preliminary Examination, and shall be examined in all the subjects necessary for graduation by the Examiners of the University.

3. So soon as within the University provision is made for the instruction of women in all subjects qualifying for graduation in which provision is made for the instruction of men, the conditions for the graduation of women shall be the same as the conditions for the graduation of men.

4. (1) Women who attend classes in the University must matriculate, paying a fee of the same amount as that exigible for other students. (2) Women, who are candidates for graduation but not matriculated students, and who may attend classes in Edinburgh, under the provisions above set forth, must, at the commencement of each year of such attendance, enrol their names in a book to be kept in the University for that purpose, paying a Fee of the same amount as the Matriculation Fee paid by students of the University.

Additional Regulations by the University Court.

Any woman who has received the requisite instruction in Chemistry, Botany, and Zoology, in any other University or Institution already approved by the University with the view to the Graduation of men, or under any teacher already recognised with that view, or in the Edinburgh School of Medicine for Women, Surgeon Square, Edinburgh, or in the Medical College for Women, Chambers Street, Edinburgh, will—subject to the provisions of Ordinance[1] No. 18, General No. 9—Regulations for the Graduation of Women, &c., be admitted to Examination in these subjects for Graduation in Science.

Women may attend within the University the advanced Courses in Botany and Zoology, and the advanced Lecture Courses in the Chemistry Department, qualifying for Graduation in Science.

Any woman, not a Matriculated Student of the University, availing herself of the permission to attend the Lectures on Chemistry, Botany, or Natural History, at the above-named Schools of Medicine in Edinburgh, must, at the commencement of each year of such attendance, enrol her name in a book to be kept in the University for that purpose, paying a Fee of the same amount as the Matriculation Fee paid by Students of the University, and having, in respect of such payment, a right to the use of the Library of the University.

[1] See Ordinance, Appendix to Calendar, 1892-93, page 51.

OUTLINE OF EXAMINATIONS.

I.—First Examination for B.Sc. in Pure Science.

(*a*1) MATHEMATICS.

Arithmetic—Euclid, Books I., II., III., IV., VI., and XI., or their equivalent, with their application to Mensuration—Algebra, Trigonometry, Conic Sections, Geometrical and Analytical.

Candidates must show sufficient knowledge in each of the subjects of Examination.

(*a*2) ZOOLOGY.

(*a*) The General Principles of Biology.

(*b*) The distinctive characters of the Invertebrate groups, and the structure, habits, &c., of Amœba, Paramœcium, Hydra, Arenicola, Hirudo, Anodon, Helix, Nephrops, and Periplaneta.

(*c*) The distinctive characters of the Chordata groups, and the structure, habits, &c., of Myxine, Raia, Rana, Columba, Ornithorhynchus, Macropus, Lepus, Ovis, and Canis.

(*d*) The skeletons of Crocodilus, Equus, Felis (skull only), Balæna, Vespertilio, and Troglodytes.

(*e*) A general knowledge of the Orders of Mammalia.

(*f*) The life-histories of Gregarina, Distoma, Tænia, Ascaris, Trichina, and Filaria.

(*g*) The outlines of the development of Amphioxus, Scyllium, and Rana, and of the fœtal appendages of Gallus and Lepus.

(*h*) The principles of the Geographical Distribution of Animals, and the Distribution of the Mammalia.

(*a*2) BOTANY.

The characteristic features of the following groups and classes of the vegetable kingdoms:—

Thallophyta [Schizophyta, Algæ, Fungi]; Muscineæ [Hepaticæ, Musci]; Pteridophyta [Filicineæ, Equisetineæ, Lycopodineæ]; Phanerogamæ [Gymnospermæ, Angiospermæ (Monocotyledones, Dicotyledones)].

The fundamental facts and principles of Morphology (including Anatomy, Histology, and Development) and Physiology. The life-history of the following plants:—Bacterium, Nostoc, Spirogyra, Saccharomyces, Mucor, Vaucheria, Agaricus, Collema, Puccinia, Claviceps, Eurotium, Marchantia, Fucus, Polysiphonia, Funaria, Aspidium, Equisetum, Selaginella, Pinus, Cycas, Scilla, Capsella, Helianthus, Ulmus, Quercus.

The characters of plants belonging to the chief British natural orders of Phanerogamæ.

(*b*) NATURAL PHILOSOPHY.

Elementary Dynamics.
Experimental Physics.

Candidates must show sufficient knowledge of both subjects.

(*c*) CHEMISTRY.

Chemical changes as distinguished from physical changes. Elements; compounds; mixtures. Laws of chemical combination by weight and by volume. The Atomic theory. Atoms; molecules. Avogadro's Hypothesis. Molecular weights of gaseous and volatile substances. Atomic weights. Law of Dulong and Petit. Chemical Notation—Symbols; formulæ; equations. Simple chemical calculations.

The non-metallic elements and their chief compounds; especially the compounds of oxygen, of hydrogen, and of chlorine with the other non-metals. The more important inorganic acids. The atmosphere. Combustion. Oxidation and reduction.

The following metallic elements and their chief compounds; especially those with oxygen, with chlorine, and with sulphur: Gold, platinum, silver, mercury, lead, antimony, tin, copper, bismuth, zinc, iron, aluminium, chromium, manganese, barium, strontium, calcium, magnesium, potassium, sodium.

The following salts: the ammonium salts; the more important sulphates, sulphites, thiosulphates, nitrates, nitrites, carbonates, bromides, iodides, iodates, phosphates, borates, silicates.

The relations of bases, acids, and salts. Electrolysis. Quantivalence. The periodic law.

The metallurgy of silver, mercury, copper, lead, tin, zinc, iron (including cast iron and steel). Alloys, such as brass, bronze, solder, type-metal. Amalgams.

The manufacture of aluminium, magnesium, potassium, sodium, glass, porcelain, mortar, gunpowder, sulphuric acid, sodium carbonate and bicarbonate, caustic soda, bleaching powder and chlorates, white lead.

Classification of Carbon compounds. Marsh Gas and its Homologues. Chloroform. Methyl and Ethyl Alcohols and Ethers. Substituted ammonias and ammonium salts. Formic and Acetic Acids, Aldehyde, Acetone, Chloral, Olefiant Gas, Acetylene, Oxalic Acid, Lactic Acid. Tartaric Acid, Citric Acid. Fats and Oils, Saponification, Glycerine. Cellulose, Sugars, Starch. Distillation of Wood and of Coal. Benzene, Benzoic Acid, Phenol, Salicylic Acid, Oil of Bitter Almonds, Hydrocyanic Acid, Cyanides, Cyanates, Thiocyanates, Urea, Uric Acid.

Simple Qualitative Analysis. The examination in this is conducted practically. Candidates are required to examine unknown *single salts* for both metallic and salt radicals, as contained in the following lists:—

Silver, Mercurous, Mercuric, Cupric, Lead, Stannous, Stannic, Bismuth, Antimony (*Tartar Emetic* may be given), Arsenious, Zinc, Manganous, Ferrous, Ferric, Chromic, Aluminium, Calcium, Barium, Strontium, Magnesium, Ammonium, Sodium, Potassium.

Carbonate, Sulphite, Thiosulphate, Sulphide, Hypochlorite (Bleaching solution), Nitrite, Chloride, Bromide, Iodide, Cyanide, Sulphate, Chromate, Orthophosphate, Arseniate, Arsenite, Borate, Oxalate, Nitrate, Chlorate, Acetate.

At the examination, Candidates are supplied with the following reagents, &c. :—Acetic Acid, dilute Hydrochloric Acid, dilute Nitric Acid, Sulphuric Acid, dilute Sulphuric Acid, Alcohol, Iodine, Ammonia, Ammonium Carbonate, Ammonium Chloride, Ammonium Oxalate, Ammonium Sulphide, Barium Nitrate, Bleaching Powder, Calcium Chloride, Calcium Hydrate, Calcium Sulphate, Cobaltous Nitrate, Cupric Sulphate, Ferric Chloride, Ferrous Sulphate, Lead Acetate, Magnesium Sulphate, Mercuric Chloride, Potassium Carbonate, Potassium Chromate, Potassium Ferricyanide, Potassium Ferrocyanide, Potassium Hydrate, Potassium Iodide, Silver Nitrate, Sodium Bitartrate, Sodium Phosphate, Sodium Sulphite, Stannous Chloride, Sulphuretted Hydrogen. *Solids*—Manganese Dioxide, Sodium Carbonate, Borax, Sulphur, Zinc, Copper.

Test papers :—Blue Litmus, Red Litmus, Plain, Starch, Turmeric.

Bunsen Burner, Test Tubes.

II.—Final Examination.

(*a*) MATHEMATICS.

Pure Geometry, Algebra, Theory of Equations, including Determinants, Trigonometry (Plane and Spherical), Analytical Geometry, Differential and Integral Calculus, Calculus of Finite Differences. (The Candidate may, if he please, profess the Elements of Quaternion Analysis.)

(*b*) NATURAL PHILOSOPHY.

Experimental Physics ; Analytical Dynamics and Thermodynamics ; *imperative.*

In addition, two or more branches of Elementary Mathematical Physics (such as Geometrical or Physical Optics, Statical or Voltaic Electricity, Capillarity, &c.). These may be selected by the Candidate.

(*c*) ASTRONOMY.

1. The Principles and Practice of astronomically finding the geographical co-ordinates of the place of observation on land and at sea.

2. The Principles that guide the actual determination of the chief astronomical constants—*refraction*, *aberration*, *nutation*, *precession*, and *solar-parallax* in fixed observatories.

3. The methods used for determining the figure and size of the earth.

The Candidate will be required to explain the general principles on which the orbits of planets, etc., are calculated, and must show a thorough knowledge of the methods followed in the case either of a *comet*, *planet*, *double-star*, or of a *meteorite* and a *meteoritic swarm*.

One group of observations must have been made in the field, or at an observatory, and fully reduced so as to show the value of the derived results, and the precautions that have been taken to free them from instrumental and personal errors. Candidates will also be examined as to the best ways of testing the critical parts of instruments, such as a *pivot*, *screw*, *level*, etc.

(*d*) CHEMISTRY.

Written and Oral Examinations:—Inorganic, including Mineralogical, Chemistry; Organic Chemistry; Chemical Crystallography; History of Chemistry.

In the written papers a choice of questions is allowed, so as to adapt the examination to the various courses of advanced study which Candidates may have selected.

Practical Examination:—Complex qualitative Analysis; Inorganic preparations; Gravimetric and Volumetric Analysis.

Each Candidate taking the higher standard will also be examined on any two of the following subjects, selected by himself:—Ultimate Organic Analysis; Gas Analysis; Assaying; Physico-chemical measurements.

(*e*) HUMAN ANATOMY, INCLUDING ANTHROPOLOGY.

Candidates are required to show a competent knowledge of the development of the human body and of its parts and organs; also the position and general arrangement of the different "systems" of organs which enter into its construction, and the structure both of these organs and of the simple tissues. A special knowledge of the locomotory apparatus and of the nervous and vascular systems will be required. An acquaintance with the technical applications of human anatomy to the practice of Medicine and Surgery is not asked for.

The Anthropological part of the subject will embrace a knowledge of race characters as found in the skull and other parts of the skeleton, in the skin, eyes, hair, features, and the external configuration of the body generally. The methods of anthropometrical measurement both of the living body and of the skeleton should be known. The possible influence of use and of external surroundings in producing modifications in the physical characters of man will require attention. An acquaintance with the "types" of mankind and the structural relations of man to the higher mammals will also be expected.

(*f*) ANIMAL PHYSIOLOGY.

The Structure, Chemical Composition, and Functions of the Elementary Tissues of Man and Animals.

The Minute Structure and Functions of the Organs concerned in the Nutrition of Man and Mammals.

The Chemical Composition and Functions of the Foods and Fluids involved in the Process of Nutrition.

The Temperature of Man and Animals.

Human Voice and Speech.

The Minute Structure and Functions of the Organs of Sense, Brain, Spinal Cord, and chief Nerves of Man and other Vertebrates.

In the Oral Examination Candidates will be examined on the above subjects, and will also be required to show their practical acquaintance with Histology, Physiological Chemistry, and Experimental Physiology.

(*g*) GEOLOGY, INCLUDING MINERALOGY.

1. *Dynamical Geology.*—The nature and operation of geological agents:—The Atmosphere, Rain, Terrestrial Waters, Ice, the Sea, Plants and Animals, Volcanoes, Movements of the Earth's Crust.

2. *Mineralogy.*—Physical and Chemical characters of the more important and typical species in the various mineral groups—more especially the rock-forming minerals and ores.

3. *Petrology.*—Megascopic and Microscopic Characters, Composition, Origin and Distribution of Rocks.

4. *Structural Geology.*—Structure of Rock-masses, Bedding, Joints, Cleavage, Foliation, Metamorphism, Faults, Unconformity.

5. *Stratigraphical Geology.*—The History of the Geological Systems—more especially those of the British Islands.

6. *Palæontological Geology.*—Characters, and distribution in time, of the more important Genera and Orders, especially those found fossil in Britain.

7. *Physiographical Geology.*—Origin of the present outlines of the Earth's surface.

(*h*) ZOOLOGY, INCLUDING COMPARATIVE ANATOMY.

1. The Systematic Zoology of the Invertebrate and Vertebrate groups.

2. The Elements of the Comparative Anatomy and Development of the Invertebrata and Vertebrata.

3. The Principles of Natural Selection, a Knowledge of the Geographical Distribution of Vertebrate Animals.

The following books are recommended:—Haswell and Parker's "Zoology"; Lang's "Text-Book of Comparative Anatomy"; Huxley's "Vertebrata"; Flower and Lyddeker's "Mammalia"; Vogt and Yung's "Practical Zootomy" (German or French edition); Darwin's "Origin of Species"; Wallace's "Darwinism" and "Island Life"; Marshall's "Embryology."

(*i*) BOTANY, INCLUDING VEGETABLE PHYSIOLOGY.

1. Morphology (including Anatomy), and Physiology of Plants.
2. The Principles of Plant Classification, and the Systematic Characters of the chief Families of Plants, including the Life Histories of Representative Types.
3. The chief facts of Geographical Distribution, and the explanation of these.
4. The chief facts of Vegetable Palæontology, and their bearing on the Theory of Descent.

II.—ENGINEERING.

REGULATIONS AND CURRICULUM FOR DEGREES IN ENGINEERING.

Candidates who began attendance on qualifying Science Classes before 1st October 1893, *are referred to* CALENDAR 1895-96 *or previous* CALENDARS.

I. Two degrees in Science in Engineering are conferred by the University of Edinburgh—viz., Bachelor of Science in Engineering and Doctor of Science in Engineering.

I.—PRELIMINARY EXAMINATION FOR BACHELOR OF SCIENCE.

II. Every candidate for the degree of B.Sc. in Engineering must pass the Preliminary Examination[1] prescribed for Degrees in Pure Science, and the conditions with respect thereto imposed by the Regulations for Degrees in Pure Science are applicable in all respects to Degrees in Engineering except as follows—viz., Mathematics must be passed on the Higher Standard and the Preliminary Examination must be passed before the candidate presents himself for any part of the First Science Examination, but not necessarily before the candidate enters on his curriculum.

II.—COURSES OF INSTRUCTION.

III. (1) Candidates must, in the course of not less than three Academical years (*i.e.* three Winter Sessions, or two Winter Sessions and three Summer Sessions), attend at least the eleven courses of instruction prescribed under Section VIII. hereof.

(2) It is the duty of the Senatus to determine from time to time which of the said courses are full and which are half courses respectively, and also to determine the number of meetings of which such full courses and half courses respectively shall consist, and to report its determination to the University Court for its approval.

IV. (1) Five full courses or their equivalent (counting two half

[1] See page 220.

courses as one full course) must be taken in the University of Edinburgh, and must include the necessary courses in Engineering, except where the University Court, after consultation with the Senatus, sees fit to allow one of the courses in Engineering to be taken outside the University under the provisions of the next sub-section.

(2) The remainder of the said courses may be taken in other Universities or Institutions approved by the University Court, or under teachers recognised by the University Court for purposes of graduation in Science in Engineering :[1] Provided that the fees for attendance at an approved Institution in Edinburgh or under a recognised teacher there are not less than the fees exigible for the corresponding courses in the University of Edinburgh.

V. The University Court may make regulations to enable candidates, not matriculated students of the University of Edinburgh, availing themselves of the permission to attend lectures at approved institutions or by recognised teachers in Edinburgh to obtain, on payment of a fee not exceeding in amount the matriculation fee paid by the students of the University, a right to the use of the Library of the University.

VI. (1) It is the duty of the Professors and Lecturers annually at the end of each winter session to submit to the Senatus a scheme specifying what proportion of the courses shall be devoted to lectures, practical demonstrations, examinations, and tutorial work respectively. The Senatus transmits such scheme, with such observations as it may think fit to make thereon, to the University Court for its approval.

(2) It is the duty of the Professors and Lecturers annually at the end of each winter session to submit to the Faculty of Science, for its consideration, syllabuses of the subjects and books proposed for the work of their classes during the next Academical year. The Faculty of Science transmits such syllabuses, with such observations as it may think fit to make thereon, to the Senatus for its approval.

VII. The provisions of the preceding section do not apply to approved Institutions or recognised teachers outside Edinburgh ; but the University Court will not grant or continue recognition to any Institutions or teachers unless it is satisfied that their courses of instruction are equivalent to the courses sanctioned in the University of Edinburgh.

VIII. The subjects of study are as follows :—

1. Mathematics, including Analytical Geometry, and Differential and Integral Calculus.
2. Natural Philosophy, including Applied Higher Mathematics.
3. Chemistry.
4. A course in the Physical Laboratory or in the Chemical Laboratory, or of Practical Chemistry.

5, 6. Two Courses in Practical work in Drawing.

7, 8, 9. Three Courses in Engineering, including Engineering Laboratory Practice, and Field Work.

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[1] See footnote 2, page 222.

10. Natural Philosophy, involving Higher Mathematics.
11. One of the following :—
    (*a*) Engineering Laboratory Practice, Mechanical or Electrical (Special Course).
    (*b*) Electricity—Pure and Applied.
    (*c*) Geology and Mineralogy.

III.—Science Examinations.

(*a*) *First Science Examination.*

IX. (1) There is a First Science Examination in the three following subjects, viz.:—(1) Mathematics, (2) Natural Philosophy, (3) Chemistry ; and the examinations in Natural Philosophy, and in Chemistry are so far as possible practical.

The examination in Geometrical Drawing may be taken either at the First or at the Final Science Examination.

(2) The examination in Mathematics includes the higher branches of Mathematics specified under Mathematics in the Section immediately preceding ; but it is optional to Candidates to pass the same examination in this subject as that required for the ordinary Degree of M.A., provided that in that case they will be required, before graduation, to pass an examination in the remainder of the subject.

(3) Candidates may present themselves in any one or more of the subjects of the First Science Examination at any examination held after they have attended a full course in the subject or subjects professed.

The following Classes in the University qualify for the First Science Examination in Engineering :—

1. Mathematics—Intermediate Honours Class (Winter), or Advanced Class (Summer).
2. Natural Philosophy—As for Pure Science Degrees.
3. Chemistry—As for Pure Science Degrees.
4. Physical or Chemical Laboratories—A three months' Course in either.
5. Drawing—Class of Geometrical Drawing during one Winter Session.

(*b*) *Final Science Examination.*

X. (1) There is a Final Science Examination in the remaining subjects specified in Section VIII. ; and, if required, in the higher branches of Mathematics as provided in Section IX., Sub-section 2.

(2) Candidates may present themselves in one or more of these subjects at any examination after they have passed the whole of the subjects in the First Science Examination and have attended the required courses in the subjects professed, provided that for this purpose subjects 5, 6, 7, 8, and 9, specified in Section VIII., shall form one subject.

XI. A candidate for the degree of B.Sc. in Engineering is not deemed to have attended a class as part of the curriculum for that

degree who does not present a certificate bearing not only that he has given regular attendance, but also that he has duly performed the work of the class.

XII. It is competent to the Examiners for the degree of B.Sc. in Engineering to report that a candidate has passed with special distinction in one or more of the subjects professed by him ; and in such a case a diploma is given setting forth the subjects in respect of which the degree has been granted, and the subject or subjects in which special distinction has been obtained.

XIII. It is competent to the University Court to modify from time to time the provisions as to the curriculum, in case such modification be rendered desirable by the development of Engineering Science, or in consequence of further provisions having been made within or without the University for the study of any branch of the said Science : Provided that in no case shall the number of full courses of study required be less than the number required for the degree of B.Sc. in Pure Science.

The following Classes in the University qualify for the Final Science Examination in Engineering :—

1. Drawing—Class of Engineering and Mechanical Drawing during one Winter Session.
2. Engineering—(*a*) Class of Systematic Engineering during two Winter Sessions. (*b*) Class of Engineering Field-Work, held in Summer.
3. Engineering Laboratory, or Electricity (Pure and Applied), or Geology and Mineralogy—A three months' Course in either.

IV.—Doctorate of Science in Engineering.

XIV. Graduates of the University of Edinburgh who have held the degree of B.Sc. in Engineering for five years, may offer themselves for the degree of D.Sc. in Engineering.

XV. A candidate for the degree of D.Sc.[1] in Engineering must present a Thesis, or a published memoir or work, to be approved by the Senatus on the recommendation of the Faculty of Science : Provided that, if required by the Senatus, the candidate must pass such examination as may be determined. The Thesis must be a record of original research undertaken by the candidate, or of important engineering work designed by himself, and actually carried out, and must be accompanied by a declaration, signed by him, that these conditions have been satisfied.

General.

XVI. Candidates who produce certificates that they have satisfied all the conditions prescribed by these Regulations, and who have passed

[1] The Thesis must be lodged with the Dean of the Faculty on or before 1st December.

the necessary examinations, will be entitled to receive the degrees of B.Sc. in Engineering and D.Sc. in Engineering, as the case may be, on the payment of the fees required.

XVII. A student who, when these Regulations came into operation, had completed a part of his course of study with a view to graduation in Science in Engineering in the University of Edinburgh, under regulations in force at the time, and who thereafter completes his course of study and passes the necessary examinations in conformity with such regulations, or with the provisions hereof, may become a candidate for the degree of B.Sc. in Engineering.

XVIII. The degrees of B.Sc. and D.Sc. in Engineering are in no case conferred on persons who have not complied with the above conditions, and are not conferred *honoris causâ tantum.*

OUTLINE OF SUBJECTS OF EXAMINATION.

FIRST BACHELOR OF SCIENCE EXAMINATION.

1. MATHEMATICS—Two papers, one of two hours and one of three hours, to be taken at one time.[1] Subjects:—Mensuration; Trigonometrical Solution of plane triangles, involving the use of logarithmic tables (to be brought by the candidates). Curve-tracing; Elements of Cartesian and Polar Co-ordinates, including application to the analytical geometry of the straight line and the conic sections; Expansion of a determinant and elements of the theory of equations.

   Fundamental ideas of the Differential and Integral Calculus; Differentiation and Integration of Simple Functions; Geometrical Interpretation of Differentiation and Integration; Elementary application to plane curves, maxima and minima of functions of one variable, areas, volumes, centres of mass and moments of inertia; Simple Differential Equations.
2. NATURAL PHILOSOPHY, mainly Practical Physics.
3. CHEMISTRY—Same as for First Examination in Pure Science.

SECOND BACHELOR OF SCIENCE EXAMINATIONS.

1. (*a.*) ENGINEERING—

Field-Work.—Surveying; Levelling; Setting out of Work; Calculation of Quantities.

Properties of Materials.—General Properties, with special knowledge of their Strength, and the Purposes to which they are applied, and some knowledge of their Cost.

Strength and Stability of Structures designed by Civil Engineers.—Metal and Timber Bridges and Roofs. Arches in Masonry. Walls.

[1] A candidate who has passed the M.A. Examination in Mathematics is exempted from the first of these papers.

Retaining Walls. Embankments. Cuttings. Breakwaters. Aqueducts. Pipes. Canals.

Strength and Form of the Elements of Machines.

Design of Combined Structures.—An elementary knowledge of the Design of Bridges and Roofs, of Reservoirs, Embankments, collecting and distributing Machinery of Waterworks, and of the main features of Railway construction, Harbours, and Drainage.

Design of Machinery.—An elementary knowledge of the construction of the Steam Engine, stationary and locomotive, of Prime Movers driven by Water, of Mill-wright work, and the general arrangement of Workshops and Factories.

Prime Movers.—Theory of Heat Engine. The Hot Air Engine. The Steam Engine. The Gas Engine. Turbines and Water Wheels.

Power Transmission—Telodynamic, Hydraulic, Electric.

Engineering Laboratory Practice.

(*b.*) DRAWING—

Candidates must exhibit a good knowledge of Geometrical Drawing, including the use of Graphics as applied in the solution of Engineering problems, and be able to represent neatly, in the usual manner employed by engineers, Plans and Sections of Buildings and Machinery, and also to make Engineering Sketches with figured dimensions from actual objects.

2. NATURAL PHILOSOPHY—

Applied Mathematics, chiefly Dynamics.

3. (*a.*) ENGINEERING LABORATORY PRACTICE, MECHANICAL OR ELECTRICAL.

(*b.*) ELECTRICITY—PURE AND APPLIED.

(*c.*) GEOLOGY AND MINERALOGY—

Dynamical Geology.—Nature and Operation of geological agents:—The Atmosphere, Rain, Terrestrial Waters, Ice, the Sea, Plants and Animals, Volcanoes, Movement of the Earth's Crust.

Mineralogy.—Physical and Chemical characters of the more important and typical species in the various mineral groups—more especially the rock-forming minerals and ores.

Petrology.—Megascopic and Microscopic Characters, Composition, Origin and Distribution of Rocks.

Structural Geology.—Structure of Rock-Masses, Bedding, Joints, Cleavage, Foliation, Metamorphism, Faults, Unconformity.

Physiographical Geology.—Origin of the present outlines of the Earth's surface.

DOCTOR OF SCIENCE EXAMINATION.

A Candidate for this Degree will be required to offer a thesis or published memoir affording evidence of original work, and may also be required to pass a Special Examination. See page 239.

III.—PUBLIC HEALTH.

Regulations and Curriculum for Degrees in Public Health.

Candidates who commenced attendance on qualifying Science Classes before 1st October 1894 are referred to the Calendar *for 1895-96, or to previous* Calendars.

I. Two degrees in Science in Public Health are conferred by the University of Edinburgh, viz., Bachelor of Science in Public Health and Doctor of Science in Public Health.

I.—Bachelor of Science.

II. Candidates for the degree of B.Sc. in Public Health must be graduates in Medicine of a University of the United Kingdom, or of some other University recognised for the purpose by the University Court of the University of Edinburgh.[1]

III. Candidates must be matriculated for the year in which they appear for examination or graduation.

(A.)—*First Examination.*

IV. Candidates for the degree of B.Sc. in Public Health, before proceeding to the first examination, must produce evidence (1) that, after their graduation in Medicine, they have worked for at least twenty hours per week during a period of not less than eight months, of which at least five consecutive months must be in the Public Health Laboratory of the University of Edinburgh, and the remainder in the foresaid Laboratory, or in a Public Health Laboratory recognised for the purpose by the University Court;[2] and (2) that they have attended in this University or any other Scottish University, in addition to the course of lectures in Physics qualifying for graduation in Medicine, such further course in Physics as the Senatus, with the approval of the University Court, shall deem necessary, and such a course of lectures in Geology, extending over not less than three months, as the Senatus with the like approval shall deem sufficient and appropriate.

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[1] The University of Würzburg has been recognised under this section.

[2] *Public Health Laboratories and Teachers recognised under this section* :—

Mason's College, Birmingham,	E. Percy F. Frankland, Ph.D., October 1894.
Liverpool School of Science and Technology,	George Tate, Ph.D., 15 June 1891.
King's College, London,	W. R. Smith, M.D., D.Sc., November 1891.
University of Aberdeen,	Professor Matthew Hay, M.D., 15 February 1891.
Pasteur Institute, Paris,	22 October 1892.
University of Cambridge,	13 December 1897.

The Courses in this University which at present qualify in Physics and Geology are Professor Tait's or Dr Knott's Courses in Physics, and Professor Geikie's Winter or Summer Course in Geology.

(B.)—*Second Examination.*

V. Candidates for the degree of B.Sc. in Public Health are not admitted to the second examination for the degree sooner than eighteen months after having taken their degree in Medicine, nor sooner than six months after having passed their first examination for the degree of B.Sc. in Public Health, and they must have attended two separate courses in Public Health in the University of Edinburgh, or in any University of the United Kingdom, or any Indian, Colonial, or Foreign University recognised for the purpose by the University Court, or in such Medical School or under such teacher as may be recognised or approved for the purpose by the University Court, each course consisting of forty lectures at least; one of these courses shall deal with Medicine and the other with Engineering, each in its relation to Public Health, in such manner as the Senatus Academicus, with the approval of the University Court, shall determine.

The lectures in this University which at present qualify are the courses of the Professor of Medical Jurisprudence and Public Health, and the course of instruction (Theoretical and Practical) in Sanitary Engineering and Building Construction by the Professor of Engineering.

They must also give evidence (1) that for six months they have practically studied sanitary work under the Medical Officer of Health of a county or burgh or district, containing a population of not less than 25,000; (2) that they have had three months' clinical instruction regarding fevers and infectious diseases in a hospital recognised as suitable for the purpose by the University Court; and (3) that they have had three months' instruction in Mensuration and Drawing under a teacher recognised for the purpose by the University Court.

VI. There is a first examination for the degree of B.Sc. in Public Health in (1) Laboratory Work, the examination being practical, written, and oral; (2) in Physics; and (3) in Geology, if an examination in Physics or Geology, as the case may be, qualifying for graduation either in Science or Arts has not previously been passed by the candidate.

VII. There is a second examination, written, oral, and as far as possible practical, for the degree of B.Sc. in Public Health in the following subjects, included in the course of instruction in Public Health —viz. (1) Sanitation, (2) Sanitary Law, (3) Vital Statistics, and (4) Medicine in its bearings on Public Health, and the examinations in these subjects are taken at one time.

VIII. The Board of Studies for the Faculty of Science from time to time, with the approval of the Senatus, determines and announces the character of the instruction to be given in the Laboratory, and fixes the standard of the examinations. The examination in Sanitation, pro-

vided for under this section, shall include Reports by the candidates on Dwellings, Workshops, Hospitals, and Sanitary Schemes generally.

IX. It is competent for the University Court, after consultation with the Senatus, to modify from time to time the provisions as to the work and instruction hereinbefore specified as necessary for graduating in Science in Public Health, in case such modification may be rendered desirable by the development of the Science of Public Health, or by increase of the facilities provided in the said University or elsewhere for the study of any branch of the said Science.

Schedules of the Subjects of Examination.

Laboratory Work.

(1.) *Examination of Water.*—Physical Properties, Chemical Properties, Microscopical Appearances, Pollution of Potable Waters.

(2.) *Examination of Air.*—Temperature, Pressure, Humidity; Carbonic Acid, Ozone, Micro-organisms, Organic Matter, Noxious Emanations.

(3.) *Examination of Foods.*—Milk, Butter, Butterine, or Oleomargarine, Flour, Bread, Starchy foods, Sugar, Honey, Butcher meat, Fish, Vegetables.

(4.) *Examination of Beverages.*—Tea, Coffee, Cocoa, Alcoholic Beverages, Aërated Waters.

(5.) *Examination of Condiments.*—Salt, Pepper, Mustard, Vinegar, and Preserves; Examination of Lime Juice. Nutritive Value of Dietaries.

(6.) *Sewage.*—Examination of sewage and of effluents after treatment.

(7.) *Soils.*—Temperature, Humidity, Permeability, Chemical Composition, Gases of the Soil, Micro-organisms.

(8.) *Disinfectants and Deodorisers.*—Chemical Examination of the Materials, Determination of their comparative power.

(9.) *Building Materials.*—Chemical and Physical Properties.

(10.) *Clothing.*—Physical Properties of Clothing Materials.

(11.) *Bacteriology.*—Micro-organisms in relation to Epidemic and other Diseases. Culture and recognition of Pathogenic and Non-Pathogenic, Aerobic and Anaerobic, Micro-organisms.

Physics.

(1.) *Laws of Motion and Properties of Matter.*—Elasticity, Density, Porosity, Divisibility, Viscosity, &c.

(2.) Elements of Dynamics of Solid and Fluid Bodies; Tides.

(3.) Elementary Experimental Facts regarding Energy in the common phenomena of Sound, Light, Heat, Electricity, and Magnetism.

Geology.

(1.) *Dynamical Geology.*—The nature and operation of Geological agents:—The Atmosphere, Rain, Underground Water, Rivers, Ice, the Sea, Plants and Animals, Volcanoes, Movements of the Earth's Crust.

(2.) *Mineralogy and Petrology.*—Characters of the more common and widely-distributed minerals and rocks.

(3.) *Structural Geology.*—The structure of rock-masses, more especially Bedding, Joints, Faults, Intrusive Rocks. Water-supply and Draining in connection with Geological Structure. Nature and Origin of Soils and Sub-Soils.

MEDICINE IN ITS APPLICATION TO PUBLIC HEALTH.

The General Pathology of Endemic, Epidemic, and other morbid Processes induced by Environment.

The Causes and Prevention of Endemic and Epidemic Diseases, as well as of Epizootics; of the Contagious or Infectious Diseases; and of those incidental to particular trades, or otherwise produced by the surroundings of the patient. Prophylaxis. Immunity. Vaccination against disease. Nature and Value of Vaccines.

SANITATION.

(1.) *Site, Environment, and Construction of Dwellings.*—Influence of Position, Aspect, and Climate; Meteorological and Geological Conditions; Soil and Drainage; Elements of Building Construction.

(2.) *Water Supply.*—Quantity per head; Relative Eligibility of available Sources of Supply; Estimation of yield; Methods of utilising various Sources of Supply; Storage, Subsidence, and Filtration; Distribution—(α) General, (β) Domestic; Causes, Detection, and Treatment of contaminated Supply.

(3.) *Air Supply.*—Quantity and Temperature, with knowledge of use of instruments employed in their Measurement; Causes and Detection of Impurities; Warming and Ventilation; Characteristics and Fitness of various methods in use.

(4.) *Excreta, Refuse, and Sewage.*—Character and Quantity of in (α) Urban, (β) Rural Districts—

A. Collection and Removal from (1) the Dwelling, (2) the Town or Village; Nature, Practical details, and maintenance of the several methods employed.

B. Disposal: (1) Sanitary, (2) Insanitary methods; Precipitation, Filtration, Irrigation, Discharge; General details of necessary works.

(5.) *General Structural and Mechanical Details of Sanitary Works.*—Character, Fitness, and Qualities of Materials (Brick, Cement, Earthenware, Iron, Lead); Design, setting out, and laying of Sewers; Plumbing and Iron-work.

(6.) *Hospitals.*—Principles of Design and Construction.

(7.) *Infectious and Epidemic Diseases.*—Origin, Modes of Propagation, and Means of Prevention; Epizootics.

(8.) *Disinfectants.*—Selection and application.

(9.) *Effects of Insanitary Conditions.*—Insufficient house accommodation, Vitiation of Air, Impure Water, Bad or insufficient Food.

(10.) *Unhealthy Occupations.*—Means of mitigating or removing their unhealthiness.

(11.) *Nuisances.*—Urban, Rural, and Domestic.

(12.) *Disposal of the Dead.*—Burial, Cremation.

N.B.—Candidates are required to be able to interpret plans submitted to them, and to illustrate their answers when necessary by sketch plans and diagrams drawn to scale.

SANITARY LAW.[1]

Sanitary Administration. Laws affecting Factories, Workshops, Mines, Common Lodging-houses, Removal of Refuse, Nuisances, Rivers Pollution, Alkali Works, Burial Grounds, Unwholesome Food, Adulteration of Food and Drugs. Sale of Poisons.

VITAL STATISTICS.

Leading facts as regards Population, Birth and Death Rates, Distribution of Diseases.

II.—DOCTORATE OF SCIENCE.

X. Graduates who have held the degree of B.Sc. in Public Health from the University of Edinburgh for a term of five years may offer themselves for the degree of D.Sc. in Public Health in the said University.

XI. Candidates for the degree of D.Sc. in Public Health must present a thesis, or a published memoir or works,[2] to be approved by the Senatus, on the recommendation of the Faculty of Science, and are required to pass an examination in Public Health, and in such of its special departments as the Senatus, with the approval of the University Court, may determine. [Candidates for D.Sc. in Public Health may appear for examination in any one of the departments of knowledge required for the degree of B.Sc. in Public Health. They are required to submit the subject in which they propose to be examined for approval at least two months before the date of the Examination.[2]]

The theses, or published memoirs or works, must be records of original research undertaken by the candidates, and must be accompanied by a declaration, signed by them, that the work has been done and the theses or memoirs composed by themselves.

GENERAL.

XII. Candidates who produce certificates that they have satisfied all the conditions prescribed by this Ordinance, and who have passed the necessary examinations, are entitled to receive the degrees of B.Sc. in Public Health and D.Sc. in Public Health, as the case may be, on payment of the fees required.

[1] A knowledge of the Sanitary Law of any part of the British Dominions will be sufficient.

[2] The Thesis must be lodged on or before 1st December, and the Subject of Examination must be submitted to the Dean before 20th January. The Examination will take place about the end of March.

XIII. Students who, at the time when these Regulations come into operation, have completed a part of their course of study with a view to graduation in Science in Public Health in the University of Edinburgh, under regulations in force at the time therein, and thereafter completes the course of study and passes the necessary examinations in conformity with such regulations, or with the provisions hereof may become candidates for the degree of B.Sc. in Public Health.

XIV. The degrees of B.Sc. and D.Sc. in Public Health are in no case conferred on persons who have not complied with the conditions hereinbefore set forth, and are not conferred *honoris causâ tantum.*

IV.—AGRICULTURE.

Regulations and Curriculum for Graduation in Agriculture.

Candidates who began attendance on Qualifying Science Classes before 1st October 1893, *are referred to Calendar* 1895-96, *or to previous Calendars.*

I. A degree of Bachelor of Science in Agriculture is conferred by the University of Edinburgh.

I. Preliminary Examination.

II. Every candidate for the degree of B.Sc. in Agriculture must pass the Preliminary Examination[1] prescribed for Degrees in Pure Science ; and the conditions imposed with respect thereto by the said Regulations are applicable in all respects to the Degree in Agriculture, except as follows :—The Preliminary Examination must be passed before the candidate presents himself for any part of the First Science Examination, but not necessarily before the candidate enters on his curriculum.

Courses of Instruction.

III. (1) Candidates must, in the course of not less than three Academical years (*i.e.* three Winter Sessions, or two Winter Sessions and three Summer Sessions), attend at least eleven courses of instruction in subjects prescribed for examination under Section VIII. hereof.

(2) It is the duty of the Senatus to determine from time to time which of the said courses are full courses and which are half courses respectively, and also to determine the number of meetings of which such full courses and half courses respectively shall consist, and to report its determination to the University Court for its approval.

IV. (1) Five full courses or their equivalent (counting two half courses as one full course) must be taken in the University of Edinburgh, and must include the course in Agriculture and Rural Economy.

(2) The remainder of the said courses may be taken in other Universities or Institutions approved by the University Court, or under teachers

[1] See page 220.

recognised by the University Court for purposes of graduation in Science in Agriculture :[1] Provided that the fees for attendance at an approved Institution in Edinburgh or under a recognised teacher there must not be less than the fees exigible for the corresponding courses in the University of Edinburgh.

(3) Residence and practical work at a farm is required of each candidate to such an extent and under such regulations as the Senatus, with the approval of the University Court, may from time to time appoint.[2]

V. The University Court may make regulations to enable candidates, not matriculated students of the University of Edinburgh, availing themselves of the permission to attend lectures at approved Institutions or by recognised teachers in Edinburgh, to obtain, on payment of a fee not exceeding in amount the matriculation fee paid by the students of the University, a right to the use of the Library of the University.

VI. (1) It is the duty of the Professors and Lecturers annually, at the end of each winter session, to submit to the Senatus a scheme specifying what proportion of the courses is to be devoted to lectures, practical demonstrations, examinations, and tutorial work respectively. The Senatus transmits such scheme, with such observations as it may think fit to make thereon, to the University Court for its approval.

(2) It is the duty of the Professors and Lecturers annually at the end of each winter session to submit to the Faculty of Science, for its consideration, a syllabus of the subjects and books proposed for the work of their classes during the next Academical year. The Faculty of Science transmits such syllabus, with such observations as it may think fit to make thereon, to the Senatus for its approval.

VII. The provisions of the preceding section do not apply to approved institutions or recognised teachers outside Edinburgh ; but the University Court will not grant or continue recognition to any Institutions or teachers unless it is satisfied that their courses of instruction are equivalent to the courses sanctioned in the University of Edinburgh, where such exist.

VIII. The subjects of study are as follows :—

1. Mathematics, or Biology (*i.e.* Zoology and Botany).
2. Natural Philosophy.
3. Chemistry.
4. Agriculture and Rural Economy.
5. Agricultural Chemistry.
6. Geology.
7. Veterinary Hygiene.
8. Agricultural Entomology.
9. Economic Science as applied to Agriculture.
10. A course in one of the following :—(*a*) Forestry ; (*b*) Experimental Physics ; (*c*) Engineering.
11. Engineering Field Work.

[1] See footnote 2, page 222.

[2] Residence and Practical work at a farm must be not less than twelve months.

II. Science Examinations.

(*a*) *First Science Examination.*

IX. (1) There is a First Science Examination in the three following subjects—viz. (1) Mathematics, or Biology (*i.e.* Zoology and Botany); (2) Natural Philosophy; (3) Chemistry.

(2) The examination in all these subjects is the same as the examination in these subjects for the degree of B.Sc. in Pure Science, as specified in the Regulations therefor.

The following courses in this University qualify for the First Science Examination in Agriculture:—

1. (1) Senior Mathematics of 100 Lectures, as for the degree in Pure Science, or (2) Biology (Zoology, Botany) as for Pure Science.

2. Natural Philosophy, as for Pure Science.

3. Chemistry, full course, including Practical Chemistry, as for Pure Science.

(3) Candidates may present themselves in any one or more of the subjects of the First Science Examination at any examination held after they have attended a full course in the subject or subjects professed.

(*b*) *Final Science Examination.*

X. (1) There is a Final Science Examination in the remaining subjects (4 to 11 inclusive) specified in Section VIII. hereof.

(2) Candidates may present themselves in any one or more of these subjects at any examination held after they have passed the whole of the subjects comprised in the First Science Examination, and have attended the required courses in the subjects professed.

The following courses qualify for the Final Science Examination in Agriculture:—

1. Agriculture and Rural Economy—Full course of about 100 Lectures and 10 Field Demonstrations.

2. Agricultural Chemistry—Full course (including Lectures and Practical Work) of about 100 hours.

3. Geology—Half-course of 25 Lectures, 10 Demonstrations in Laboratory, and 8 Field Demonstrations.

4. Veterinary Hygiene—Half-course of about 50 Lectures.

5. Agricultural Entomology—Half-course of about 20 hours.

6. Economic Science, as applied to Agriculture—Half-course of about 40 Lectures—the Political Economy Class in Arts till Christmas.

7. A course in one of the following:—

(*a*) Forestry—Full course of about 100 Lectures.

(*b*) Experimental Physics—Full Laboratory course of 100 hours.

(*c*) Engineering—Full course of about 100 hours.

8. Engineering Field Work:—Half-course, extending over three weeks, 75 hours—Lectures, Drawing Office, and Field.

XI. If a student, before passing the Preliminary Examination, has attended a class qualifying for graduation, the Senatus may, on special

cause shown, permit him to count such class for graduation, on condition of his passing the full Preliminary Examination within such time thereafter as the Senatus may appoint, and in every such case the Senatus reports to the University Court the reasons for the relaxation.

XII. A candidate for the degree of B.Sc. in Agriculture shall not be deemed to have attended a class as part of the curriculum for that degree who does not present a certificate bearing not only that he has given regular attendance, but also that he has duly performed the work of the class.

GENERAL.

XIII. Candidates who produce certificates that they have satisfied all the conditions prescribed by these Regulations, and who have passed the necessary examinations, will be entitled to receive the degree of B.Sc. in Agriculture, on payment of the fees required.

XIV. A student who, at the time when these Regulations came into operation, had completed a part of his course of study with a view to graduation in Science in Agriculture in the University of Edinburgh, under regulations in force at the time therein, and who thereafter completes his course of study and passes the necessary examinations in conformity with such regulations, or with the provisions of these Regulations, may become a candidate for the degree of B.Sc. in Agriculture.

XV. The degree of B.Sc. in Agriculture shall in no case be conferred on persons who have not complied with the conditions hereinbefore set forth, and shall not be conferred *honoris causâ tantum*.

OUTLINE OF SUBJECTS OF EXAMINATION.

FIRST BACHELOR OF SCIENCE EXAMINATION.

1. (*a*) MATHEMATICS, or (*b*) BIOLOGY (*i.e.* ZOOLOGY and BOTANY).

2. NATURAL PHILOSOPHY.

3. CHEMISTRY, including Practical Chemistry.

The Examinations are the same as for the First B.Sc. in Pure Science.

FINAL BACHELOR OF SCIENCE EXAMINATION.

1. AGRICULTURE AND RURAL ECONOMY: ITS SCIENTIFIC PRACTICE.

1. *Definition of Agriculture.*—Aid given by the Allied Sciences.

2. *Surface Geology.*—Formation and Classification of Soils—their Physical and Chemical Properties. Importance of Organic Nitrogen. Indications of good or bad Soils—the Methods of Management.

3. *Drainage.* — Its Practice and Advantages — Irrigation—Wet-Warping — Mixing or Top-Dressing—Claying—Marling—Chalking—Liming—Paring and Burning—Clay-Burning. The Effect on Soils of Cultivation and the Growth of Plants.

4. *Implements and Machines of the Farm.*—The Importance of their proper Construction and Careful Management.

5. *Steam Cultivation.*—Its Advantages and Disadvantages.

6. *The Motive Powers Employed on the Farm.*—1st, Man; 2d, Horse; 3d, The Mechanical Powers (Water, Wind, and Steam)—their Comparative Values and Advantages.

7. *Farm Servants.*—Their Labour and Wages — Day-work and Piece-work. Detailed and total costs of Horse and Hand Labour.

8. *The Importance of Rotations.*—Different Rotations and reasons why they are adopted—Systems of Farming.

9. *Our Farm Crops* (Grain, Root, Forage, and Hay Crops).—Their Selection and Growth—Prevention of Insect Injuries and Diseases.

10. *Identification of Grasses and other Valuable Pasture Plants.*—Character and Habits of those of importance—Detection of Adulterations.—Regulations necessary to protect the Farmer in buying Seeds.

11. *The Management of Permanent Pasture.*—Proper Methods of making new Pasture—its After-treatment.

12. *Weeds in Pastures* and Means of Destroying them.

13. *Silage and the System of Ensilage.*—Its Advantages, &c.—Its Suitability and Unsuitability according to Locality.

14. *Manures.*—Farm-yard Manure — its proper Mixing, Storing, and Application—its great advantage as a General Manure. Special Manures and so-called Artificials — their Uses, Abuses, and Adulterations — the proper Times and Methods of their Application. The Value and Use of Liquid Manure and Town Sewage.

15. *Buildings and Fences.*—The proper Construction of Fences—the General Arrangement of Farm-Buildings—the best Flooring and Inside Plans and Dimensions of Byres, Cattle-Sheds, Stables, &c.—Covered Yards—Ventilation—Drainage of Houses and Farm-yards.

16. *Live-Stock, embracing Cattle, Pigs, Horses, Sheep.*—The Various Breeds of each, and suitability of some to Local Conditions—"The Principles of Breeding." Feeding and Management—Cost of Feeding—Proper Mixtures of Food to Use. Cost of the Production of a Stone of Beef, Mutton, and Pork, showing the Amount of Profit in each Case.

17. *Dairying in all its Branches*, including the suitability or otherwise of surrounding Conditions—the proper Classes of Dairy Stock to keep, and their Management—the Treatment of Milk, and its Sale or Manufacture into Cheese, Butter, &c.

18. *Feeding Stuffs.*—Suitability of the Common Food Substances to the Different Classes of Farm Stock—The Purchase, Storing, and Administration of the same—their Manurial Residues.

2. Agricultural Chemistry.

1. *Atmosphere.*—Relation of its Constituents and Conditions to Plant Life.

2. *Soils.*—Origin, Formation, Composition, Biology, Amelioration.

3. *Plants.*—Constituents, Germination, Nutrition, Maturation, Symbiosis.

4. *Manures.*—Nature, Uses, Application, Valuation, Compatibility, Exhaustion.

5. *Crops.*—Classification, Relation, Preservation, Uses as Fodder, Residual Value.

6. *Animal Nutrition.*—Nutritive Processes, Laws of Flesh and Fat Production, Digestibility of Fodders, Nutrient Ratio, Relation of Food to Work and to Manure.

7. *Dairy.*—Composition of Dairy Products, Circumstances affecting Quantity and Quality, Scientific Management.

Tests for the detection of Potassium, Sodium, Ammonium, Magnesium, Calcium, Aluminium, Iron, Arsenic, Antimony, Copper, Lead, Mercury.

Sulphate, Sulphite, Sulphide, Phosphate, Carbonate, Nitrate, Chloride, Acetate, Oxalate, Tartrate, Citrate.

Sugars, Starches, Fats, Proteids.

Chemical, Physical, and Microscopic Tests for Adulteration in Manures, Feeding Stuffs, and Dairy Produce.

Methods of determining of Clay, Sand, Carbonates, Humus, and Moisture in Soils.

Phosphoric Acid, Potash, Nitrogen, Lime, Magnesia, Insoluble Matter and Moisture in Soils and Manures.

Albumen, Amides, Fat, Carbohydrates, Woody Fibre, and Ash in Fodders.

3. Geology.

(1.) *Physical Geography and Dynamical Geology.*—The nature and operation of Geological agents:—The Atmosphere, Rain, Underground Water, Rivers, Ice, the Sea, Life, Earthquakes, Volcanoes, Movements of Upheaval and Depression.

(2.) *Mineralogical and Petrological Geology.*—Characters of the principal Rock-forming Minerals: Composition, Origin, and Distribution of the more important and commonly occurring Rocks.

(3.) *Structural Geology.*—The Structure of Rock-masses, more especially Bedding, Joints, Faults, and Denudation.

(4.) *Agricultural Geology.*—Nature and Origin of Soils and Subsoils; Draining in connection with Geological Structure; Mineral substances used as Manures.

4. Veterinary Hygiene.

1. The Comparative Osteology (rudimentary) of the Horse, Ox, and Sheep.

2. The Physiology of Dentition in Horse, Ox, Sheep, and Pig, more especially as indicative of the Age of the Animal.

3. The Physiology of Gestation; the Diseases incidental to the pregnant state, and also those consequent to the act of parturition.

4. Description of the Digestive Organs of the Horse, Ox, and Sheep (separately), also their Physiology, and most ordinary Diseases.

5. Contagious and other Diseases of Farm Stock. Prevention and Treatment of Diseases.

5. Agricultural Entomology.

Insect pests of cultivated plants and of farm live stock. Methods of prevention of, and of remedy for, their attacks. Classification of insects, and details of their structure and life history, in so far as of economic importance.

6. Economic Science as applied to Agriculture.

1. The Food Supply of the United Kingdom. 2. The Wages of Agricultural Labour. 3. The Profits of the Farmer. 4. The Rent of Land and Causes of Variations in Rent. 5. Contracts for the Hire of Land. 6. The Risks of Long Leases. 7. Compensation for Improvements. 8. Fixity of Tenure and its Effects. 9. The Prices of Agricultural Produce. 10. Foreign Competition. 11. Effects of the Appreciation of Gold and the Depreciation of Silver. 12. Effects of various Imperial and Local Taxes on Agriculture.

7 (*a*). Forestry.

1. *Sylviculture.*—Atmosphere, Climate, and Soil, as affecting Forest Vegetation; shape and development of forest trees; pure and mixed woods; the sylvicultural systems; formation and tending of woods.

2. *Injuries to Standing Woods and their Protection.*—Winds and storms, fires, animals, fungi, weeds, frost, snow, drought, &c.

3. *Utilisation of Produce.*

4. *Structure, Classification, and Technical Properties of Timber.*

5. *Forest Organisation.*—The principles on which working plans are based.

6. *Uses and Effects of Forests.*

7 (*b*). Experimental Physics.

The Measurement of Physical Constants, such as—Gravitation, Specific Gravity, Specific Heat, Conductivity, Dilatation, Refractive Index, Magnetic and Electric Quantities, &c.

7 (*c*). Engineering.

1. *Mechanics.*—(*a*) Principles of Statics; couples; moments of forces; parallel and inclined forces; centre of gravity; moments of

inertia ; friction, (*b*) Principles of Kinematics and Kinetics ; Newton's laws of motion ; Conservation and transformation of energy.

2. *Strength and Properties of Structural Materials*, including their fitness and adaptability, together with some knowledge of their cost.

3. *Strength and Stability of Structures.*—General knowledge of the design, construction, and maintenance of Roads, Roofs, Bridges, Embankments, Retaining Walls, Aqueducts, and General Buildings.

4. *Hydraulics.*—The laws governing the flow of water in open and closed channels, and its discharge through orifices ; Systems of Drainage and Irrigation ; Pumps, &c.

5. *Mechanism and Machinery.*—General Principles and means of transmission, conversion, and modification of motion ; general millwright work with special reference to the machines ordinarily employed for agricultural purposes.

6. *Prime Movers.*—A knowledge of the sources and modes of estimating power ; The Steam Engine ; Pneumatic Machines ; Hydraulic Motors, Water-wheels, Turbines, &c.

8. Engineering Field Work.

Surveying, with special reference to Estate and Parish Surveying, Levelling, Gauging of Streams and Rivers, Plotting of Surveys and Sections, Setting out of Work, and Calculation of Quantities.

FEES FOR EXAMINATIONS FOR DEGREES.

1. Preliminary Examination.

The Fee is 10s. 6d. for each appearance.

2. Fees for Examinations or for Registering Equivalents.

(1) *Pure Science and Engineering*—			
First B.Sc. Examination, (or for each subject, £1, 1s.)	£3	3	0
Second B.Sc. Examination,	3	3	0
Doctor of Science,	10	10	0
	£16	16	0
(2) *Public Health*—			
First B.Sc. Examination,	£3	3	0
Second B.Sc. Examination,	3	3	0
For the Degree of Doctor,	10	10	0
	£16	16	0
(3) *Agriculture*—			
First B.Sc. Examination, (or for each subject, £1, 1s.)	£3	3	0
Second B.Sc. Examination,	3	3	0
	£6	6	0

Candidates for the Degree of B.Sc. who fail to pass pay a fee of 10s. 6d. for re-examination in each subject, and Candidates for D.Sc. pay a fee of £5, 5s. for each re-examination.

Every Candidate for Graduation must pay the Fee of £1 for Registration as a Member of the General Council of the University, at least one clear day before the date of Graduation.[1]

All communications relating to the Curriculum and Examinations for Degrees, Fellowships, Scholarships, &c., in Science should be addressed to *The Dean of the Faculty of Science*, University, Edinburgh.

All Examination, Matriculation, and Registration Fees are payable at the *Matriculation Office*, University. Candidates may pay the Fees personally, or transmit them to T. GILBERT, by *Post Office*, or *Postal Orders*, or by *Bank Drafts*, crossed "Union Bank of Scotland (Hunter Square Branch), Edinburgh," but not by cheques on private accounts.

TIME TABLE OF EXAMINATIONS AND DATES FOR PRESENTING CERTIFICATES AND PAYMENT OF FEES.[2]

Candidates are required to enter for each periodical examination at which they desire to appear, and to state the subject or subjects in which they desire to be examined.

The dates of the Examinations for 1898-99 have been fixed as follows, and Candidates are required to assemble in the Examination Hall at the University a quarter of an hour before the time fixed for examination:—

PRELIMINARY EXAMINATION.[2]

1898.			
Sept.	16.	Fri.	Names to be given in, and Fees paid, *on or before* this date.
,,	30.	Fri.	Italian, 2-5.
Oct.	1.	Sat.	English, 9-11, 12-2; Lower Greek, 3-6.
,,	3.	Mon.	Lower Latin, 9-12.

[1] Candidates should apply for their Diplomas at the Matriculation Office, immediately after obtaining the Degree. There is no additional charge for the Diploma. Any Graduate who cannot apply personally for his Diploma, is required to give written authority to some person to receive and give a receipt for it.

[2] When names are not entered, nor fees paid, on or before the stated dates, or a Pass obtained where the fee has been previously paid, a late-entry fee of ten shillings must be paid before the Candidate can be admitted to examination. This fee will not be received after Twelve o'clock of the last day but one preceding the Examination for which the Candidate desires to appear, without the express permission of the Dean of his Faculty and the subsequent sanction of the Senatus. A Candidate must enter his name and pay the fee, or, when the fee has been previously paid, obtain a Pass, for each periodical Examination at which he desires to appear. A Candidate is not held to be entered until his Schedule is lodged, the Fee paid, and a Pass to the Examination obtained.

1898.		
Oct. 4.	Tu.	Higher Latin, 9-11, 12-2; French, 1st paper, 3-4.30.
,, 5.	Wed.	Higher Greek, 9-11, 12-2; German, 1st paper, 3-4.30.
,, 6.	Thur.	Higher Mathematics, 9-11, 12-2; French, 2nd paper, 3-5.
,, 7.	Fri.	German, 2nd paper, 9-11; Dynamics, 1-4.
1899.		
Mar. 1.	Wed.	Names to be given in, and Fees paid, *on or before* this date.
,, 31.	Fri.	Italian, 2-5.
April 1.	Sat.	English, 9-11, 12-2; Lower Greek, 3-6.
,, 3.	Mon.	Lower Latin, 9-12.
,, 4.	Tu.	Higher Latin, 9-11, 12-2; French, 1st paper, 3-4.30.
,, 5.	Wed.	Higher Greek, 9-11, 12-2; German, 1st paper, 3-4.30.
,, 6.	Thur.	Higher Mathematics, 9-11, 12-2; French, 2nd paper, 3-5.
,, 7.	Fri.	German, 2nd paper, 9-11; Dynamics, 1-4.

FIRST SCIENCE EXAMINATION.[1]

1898.		
Oct. 4.	Tu.	Names to be given in, Certificates shown, and Fees paid, *on or before* this date.
,, 13.	Thur.	Mathematics, 9-11, 11.30-1.30; Natural Philosophy, 2.30-4.30.
,, 14.	Fri.	Natural Philosophy, 9-11; Mathematics for Engineering, 11.30-1.30, 2.30-5.30.
1899.		
Mar. 7.	Tu.	Names to be given in, and Fees paid, *on or before* this date.
,, 17.	Fri.	Certificates to be examined.
,, 25.	Sat.	Practical Chemistry, at hours to be announced (also on subsequent days if necessary).
,, 27.	Mon.	Chemistry, 10-12; Oral Examination may begin; Laboratory Work (Public Health), 10-12; Physics (Public Health), 1-3.
,, 28.	Tu.	Zoology, 10-12; Botany, 1-3; Geology (Public Health), 1-3.
,, 29.	Wed.	Practical Work in Public Health Laboratory begins.
April 5.	Wed.	Mathematics, 3-5.
,, 6.	Thur.	Mathematics, 9-11; Drawing (Geometrical), 9-12.

[1] See footnote 2, page 255.

1899.		
April 7.	Fri.	Natural Philosophy, 9-11, 11.30-1.30.
July 7.	Fri.	Names to be given in, and Fees paid, *on or before* this date.
,, 14.	Fri.	Certificates to be shown.
July 15.	Sat.	Practical Chemistry at hours to be announced (also on subsequent days if necessary).
,, 17.	Mon.	Chemistry, 10-12; Oral Examination may begin. Laboratory Work (Public Health), 10-12; Physics (Public Health), 1-3.
,, 18.	Tu.	Zoology, 10-12; Botany, 1-3; Geology (Public Health), 1-3.
,, 19.	Wed.	Practical Work in Public Health Laboratory begins.

FINAL SCIENCE EXAMINATION.[1]

1898.		
Oct. 4.	Sat.	Names to be given in, Certificates shown, and Fees paid, *on or before* this date.
,, 14.	Fri.	Zoology, 9-12 (1st paper), 1-3 (2nd paper); Practical Examination at time to be arranged.
,, 15.	Sat.	Astronomy, 9-12 (1st paper), 1-3 (2nd paper).
1899.		
Mar. 7.	Tu.	Names to be given in, and Fees paid, *on or before* this date.
,, 24.	Fri.	Economic Science (Agriculture), 9-11. Certificates to be examined.
,, 28.	Mon.	Botany, 9-12 (1st paper), 1-3 (2nd paper); Practical Examination at time to be arranged; Veterinary Hygiene, 1-3. Medicine (Public Health), 10-12; Sanitary Law, 1-3; Vital Statistics, 4-6.
,, 30.	Th.	Sanitation, 10-12, 1-4; Geology (Agriculture and Engineering), 1-3.
,, 31.	Fri.	Physiology, 9-12 (1st paper), 1-3 (2nd paper); Practical Examination at time to be arranged. Agriculture, 9-12; Agricultural Chemistry, 1-3; Practical Examination in Agricultural Chemistry, at time to be arranged. Oral and Practical Examinations in Public Health subjects begin.
April 3.	Mon.	Mathematics, 9-12, 2-5; Engineering, 9-11, 3-5.
,, 4.	Tu.	Mathematics, 9-12; Natural Philosophy, 2-5; Engineering, 9-12; Engineering Field-Work (Agriculture), 3-5; Dynamics (Engineering), 2-5.

[1] See footnote 2, page 255.

1899.

April	5.	Wed.	Natural Philosophy, 9-12, 2-5; Experimental Physics, 9-12; Engineering, 9-11; Engineering (Agriculture), 9-11; Experimental Physics (Agriculture), 3-5.
,,	6.	Thur.	Agricultural Entomology, 9-11; Forestry, 11.30-1-30; Drawing (Engineering), 9-12, 2-5.
July	7.	Fri.	Names to be given in, and Fees paid, *on or before* this date.
,,	14.	Fri.	Certificates to be examined.
,,	17.	Mon.	Chemistry, 9-12 (1st paper), 1-3 (2nd paper); Practical Examination at time to be arranged.
,,	18.	Tu.	Geology, 9-12 (1st paper), 1-3 (2nd paper); Practical Examination at time to be arranged.
,,	19.	Wed.	Human Anatomy (including Anthropology), 9-12 (1st paper), 1-3 (2nd paper); Practical Examination at time to be arranged.

DOCTOR OF SCIENCE.[1]

D.Sc. Candidates are required to lodge their Theses and proof of their eligibility with the *Dean of the Faculty of Science* at the Matriculation Office, and to pay the Fees on or before 1st December.

Candidates for D.Sc. in Public Health are required to intimate the subjects in which they desire to be examined to the Dean before 20th January. The examination will take place about the end of March.

Degrees in Science.

DOCTORS OF SCIENCE.

The names of the Doctors of Science previously to 1889, will be found in the Historical Appendix to List of Graduates published in 1889, pp. 132-134. The following are the names of the Doctors from 1889 to 1898, both years included :—

IN MENTAL SCIENCE.

1891. William Mitchell, M.A.
,, Robt. Mark Wenley, M.A.
1892. Chas. Mackinnon Douglas, M.A.
,, Jas. Lewis M'Intyre, B.A.
1893. William Ingram, M.A.
1893. Purnananda Chatterji.
1894. William Caldwell, M.A.
1895. John Gunn, M.A.
,, Sydney Herbert Mellone, B.A.

IN PHILOLOGY.

1893. Harry Angus Alexander Kennedy, M.A.
1894. George Barnet Gardiner, M.A.

[1] See footnote 2 page 255.

IN PURE SCIENCE.

1889. Thomas Rhymer Marshall.
1890. Alex. Crichton Mitchell.
,, Hugh Marshall.
1891. William Cossar Mackenzie.
,, Thomas Smith Murray.
1892. Jacques François Marais, B.A.
1893. John Shields.
1894. Malcolm Laurie, B.Sc.
,, Charles Hunter Stewart, M.B., C.M., B.Sc.
1895. Arthur Pillans Laurie, B.Sc.
1896. John Carruthers Beattie, B.Sc.
,, John Charles Mitchell, B.Sc.
1897. Frederick Beddow, B.Sc.
,, Alexander Morgan, M.A., B.Sc.
,, Gregg Wilson, M.A., B.Sc.
1898. Robert Stewart MacDougall, M.A., B.Sc.
,, Joseph Prokop Pražák, Ph.D., D.Jur.

IN PUBLIC HEALTH.

1890. James Anderson, M.D.
,, James Andrew Blair, M.B.
,, William John Brock, M.B.
,, John Stevenson, M.B.
1892. Charles Henry Bedford, M.D.
,, Robt. Wm. Dickinson MacMartin Cameron, M.D.
,, Alex. C. Houston, M.B., C.M.
,, William George Aitchison Robertson, M.D.
1893. Edward Henry Ezard, M.D.
1893. John Howard-Jones, M.B.
,, John Fred. Joseph Sykes, M.B.
,, James Buchanan Young, M.B.
1894. Henry Halcro Johnston, M.D.
,, John Macmillan, M.A., M.B., C.M.
,, Charles Templeman, M.D.
1898. Walter Holland Ogilvie, M.B., C.M., B.Sc.

Degrees Conferred in 1897-98.

THE DEGREE OF DOCTOR OF SCIENCE.

IN PURE SCIENCE.

31st July 1897.

Frederick Beddow, B.Sc. *Thesis*—"On Some New Series of Cobaltammine Compounds."

Alexander Morgan, M.A., B.Sc. *Thesis*—"On the Geometrical Representation of Elliptic Integrals of the First Kind."

Gregg Wilson, M.A., B.Sc. *Thesis*—"On the Development of the Müllerian Ducts of Vertebrata."

13th April 1898.

Robert Stewart MacDougall, M.A., B.Sc. *Thesis*—"Studies in Coleopterous Life-Histories."

Joseph Prokop Pražák, Ph.D., D.Jur. *Thesis*—"A Study on the Wild Horses of the Ethiopian Region."

THE DEGREE OF BACHELOR OF SCIENCE.

31st July 1897.

Ernest Masson Anderson.
*Alexander Brown, M.A.
George Brownlee.
Alexander Campbell Mackay, M.A.

23rd October.

John Dickson Comrie, M.A.

13th April 1898.

*Campbell Brown, M.A.
†John Forbes Cameron, M.A. (*in absentiâ*).
Charles William Cochrane.
Patrick Sinclair Hardie, M.A.
‡James Peter Hill.
§James Chalmers Leighton, M.A.
William Thomson, M.A.

In Engineering.

23rd October 1897.

Peter Drummond.

13th April 1898.

Andrew Cameron Smith, M.A.
David Stevens.
James Cox Tod.

In Public Health.

31st July 1897.

Francis Maitland Gibson, M.B., C.M., B.Sc. (Pure Science).
Robert Charles MacWatt, M.B., C.M.
Bahadhur Kaikhushro Nariman, M.B., C.M.
Alexander Oswald Cowan Watson, M.B., C.M.

13th April 1898.

Henry Latham, M.B., C.M.
Malcolm M'Larty, M.B., C.M.
Robert George Selby, M.B., C.M.
Arthur David Yule, M.B., C.M.

In Agriculture.

31st July 1897.

Sydney Francis Ashby.
William Grice Mason.
Samuel Milligan, M.A.
John Ollerton Peet.

13th April 1898.

Patrick Hugh Guthrie.
Charles Edward Legat.
John Leslie.
George Walker Profeit.

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* Passed with Special Distinction in Botany and Geology.
† Passed with Special Distinction in Mathematics, Natural Philosophy, and Astronomy.
‡ Passed with Special Distinction in Botany and Zoology.
§ Passed with Special Distinction in Mathematics and Natural Philosophy.

Fellowships, Scholarships, Bursaries, Prizes, &c., in Science.

I.—FELLOWSHIPS.

I.—THE FALCONER MEMORIAL FELLOWSHIP.

This Fellowship was founded in 1869 by the Subscribers to the Fund for a Memorial to Hugh Falconer, M.D. (for many years Superintendent of the H. E. I. Company's Botanic Gardens at Suharunpoor and Calcutta), and the Association for the better Endowment of the University of Edinburgh, for the encouragement of the Study of Palæontology and Geology. It is of the annual value of £114, and is tenable for two years, but if the Senatus see fit, it may be held for three years, and with consent of the University Court, for four years. It is awarded after competitive examination in Natural History as applied to Palæontology and Geology, and is open to Graduates in Science or Medicine of this University of not more than three years' standing at the time of the competition. It cannot be held along with any other Fellowship, Scholarship, or Bursary in any Scottish University. The Deed of Foundation will be found at p. 270 of the CALENDAR for 1870-71. The next appointment may be made in July 1900.

1895. *John S. Flett, M.A., B.Sc., M.B., C.M.*

II.—GEORGE HERIOT'S RESEARCH FELLOWSHIP.

Regulations under Revision. For particulars apply to DAVID LEWIS, Treasurer, George Heriot's Trust, 20 York Place, Edinburgh.

II.—SCHOLARSHIPS.

I.—BAXTER PHYSICAL SCIENCE SCHOLARSHIP.

This Scholarship was founded by Sir David Baxter, Bart., of Kilmaron, in 1865, and is of the annual value of £76, 6s. 10d., tenable for two years. It is awarded, on the result of the Final Examination for the Degree of Bachelor of Science, to the student who is most distinguished in two or more of the Physical Science subjects—viz., Mathematics, Natural Philosophy, Astronomy, Chemistry, either in the year preceding a vacancy, or in the year in which a vacancy occurs. The holder is required to satisfy the Senatus Academicus that he has been pursuing his studies in Science during the first year of his tenure in such a manner as the Senatus may fix. It cannot be held with any other Scholarship, Fellowship, or Bursary, or with any situation yielding an annual income of £100. Next vacancy in 1900.

1898.

II.—BAXTER NATURAL SCIENCE SCHOLARSHIP.

This Scholarship was founded by Sir David Baxter, Bart., of Kilmaron, in 1865, and is of the annual value of £76, 6d. 10d., tenable for two years.

It is awarded, on the result of the Final Examination for the Degree of Bachelor of Science, to the Student who is most distinguished in two or more of the Natural Science subjects—viz., Human Anatomy, including Anthropology; Physiology, including Histology; Geology, including Mineralogy; Zoology, including Comparative Anatomy; Botany, including Vegetable Histology, either in the year preceding a vacancy, or in the year in which a vacancy occurs. The holder is required to satisfy the Senatus Academicus that he has been pursuing his studies in Science during the first year of his tenure in such manner as the Senatus may fix. It cannot be held with any other Scholarship, Fellowship, or Bursary, or with any situation yielding an annual income of £100. Next vacancy in 1900.

1898.

III.-VIII.—VANS DUNLOP SCHOLARSHIPS.

These Scholarships are each of the annual value of £100, and are tenable for three years, on condition that the scholar submits annually—(1) A certificate of attendance on lectures or laboratories approved by the Senatus; or (2) a certificate of having acted as an assistant to a Professor in this or some other University; or (3) a written report of his work done during the year, together with a Thesis composed by himself in connection with some part of that work. For General Regulations, see under Faculty of Arts.

III.—MATHEMATICS.[1]

The next Competition will take place in April 1901.

IV.—NATURAL PHILOSOPHY.[1]

The next Competition will take place in April 1901.

V.—AGRICULTURE AND RURAL ECONOMY.

This Scholarship is open to all Matriculated Students who have regularly attended classes in this University for not less than two and not more than six years, and who have attended the Class of Agriculture and Rural Economy within one year of the date of Competition. The subjects of Examination are Agriculture, Chemistry, Botany, and Veterinary Science. The next Competition will take place in March 1901.

The Examiners are the Professor of Agriculture and an Examiner nominated by the Senatus.

1898. S. F. Ashby, B.Sc.

VI.—CHEMISTRY.

(1.) The subjects of Examination are—(*a*) Inorganic and Organic Chemistry, and the connection between the Chemical and Physical character of Substances. (*b*) Qualitative and Simple Quantitative Analysis of Inorganic Substances, and the Preparation of Pure Chemical Substances. (2.) The Examination in subjects (*a*) is similar,

[1] For particulars, see "Scholarships" in Faculty of Arts.

and held at the same time, as that for the Second B.Sc. Examination. The Examination in subjects (*b*) is conducted practically in the Laboratory. (3.) The Competition is open to all Students of the University, from the second to the sixth year (inclusive) of their attendance, and will take place in July 1900.

1897. *J. P. Longstaff.*
A. W. C. Menzies, M.A. } *equal.*

VII.—NATURAL HISTORY, INCLUDING GEOLOGY AND BOTANY.

(1.) The subjects Natural History, Geology, and Botany are coequal in the Examination, and the Examination in each of the three subjects is similar to that for the Second B.Sc. in Pure Science, and consists of two parts—a Written Examination extending over not less than three hours, and a Practical Examination with specimens.

(2.) The next Examination will be held in April 1901, at the same time as the Second B.Sc. Examination.

(3.) The Competition is open to all Students of the University, from the second to the sixth year (inclusive) of their attendance.

1898. *Campbell Brown, M.A., B.Sc.*

VIII.—ENGINEERING AND MECHANICAL AND USEFUL ARTS.

The Examination is similar to that for the Second B.Sc. in Engineering, with the addition of questions on prescribed books treating of Engineering and Mechanical and useful Arts.

The Competition is open to all Matriculated Students who have been in regular attendance on the Class of Engineering for at least two Winter Sessions, and who have not been Students of the University for more than four years. The next Competition will take place in April 1900.

The Examiners are the Professors of Engineering and Natural Philosophy.

1897. *William Blackadder, B.Sc.*

IX.—STEVEN SCHOLARSHIP IN AGRICULTURE.

This Scholarship was founded in 1882 by the Misses Steven of Bellahouston in memory of their brother Moses Steven, Esq. It is of the value of £75, and is awarded annually, in connection with the Class of Agriculture, the subjects of examination being Agriculture and General and Agricultural Chemistry.

The Scholar is required to visit the annual exhibitions of the four leading agricultural societies, or such as the Professor of Agriculture shall appoint, and to report on his visit or visits to the satisfaction of the Professor of Agriculture. The Exhibitions which the Scholar is required to visit are:—

The Royal Agricultural Society of England.

The Bath and West of England Agricultural Society.

The Highland and Agricultural Society of Scotland.
Royal Agricultural Society of Ireland.
See Deed of Foundation at p. 397 of CALENDAR for 1882-83.
1898. *E. A. Nobbs.*

X., XI.—HOPE PRIZE SCHOLARSHIPS.

Two Hope Prize Scholarships have been instituted (with funds formerly of the Hope Chemistry Prize founded by the late Professor Thomas C. Hope) in connection with the Chemical Laboratory of the University, each of the value of about £30 per annum, tenable for one year, and awarded annually at the end of the Winter Session. Each Scholarship is awarded to the student whom the Professor of Chemistry thinks most deserving of those who have worked during that Winter Session in the Chemical Laboratory of the University. The scholars must work during the Summer and Winter Sessions succeeding their appointment in the Chemical Laboratory of the University, and must assist the Professor of Chemistry in such manner as he thinks fit in each case, and the scholars are not required to pay fees for the Laboratory. In case of resignation of a scholar, or of a scholar failing to fulfil the conditions, the Professor of Chemistry may, if he thinks proper, recommend a student working in the Chemical Laboratory for the remainder of the Scholarship so become vacant, the new scholar so appointed to perform the duties and receive the payments during the remainder of the time for which his predecessor was appointed. Scholars may, in case of great distinction, be appointed for a second year.

1898. *Charles Anderson* and *J. W. Eastham.*

XII.—NEIL ARNOTT SCHOLARSHIP IN EXPERIMENTAL PHYSICS.[1]

Is awarded annually in April.

XIII.—THE MACKAY SMITH SCHOLARSHIPS.

These Scholarships were at first intended to have been held in Edinburgh and Glasgow Universities alternately, and were so held in Edinburgh for the Sessions 1883-84 and 1884-85, and in Glasgow for the Sessions 1885-86 and 1886-87. It was, however, afterwards arranged, instead of the Scholarships alternating between the two Universities, that the proceeds of the present investment should be divided—one half being retained by the University of Edinburgh, and the other half transferred to the University of Glasgow, so that each University now acts independently. The portion of the proceeds at present falling to Edinburgh is £50 annually, which provides one Scholarship in Natural Philosophy and one in Chemistry, each of the annual value of £25, tenable for two years, and to be held under such regulations and conditions as the Senatus may from time to time direct.

[1] For particulars, see "Scholarships" in Faculty of Arts.

The Scholarship in Natural Philosophy is open for competition to Students who have attended the Class of Natural Philosophy, and the Scholarship in Chemistry to Students who have attended the Class of Chemistry, both in this University. The successful Candidate for the Scholarship in Natural Philosophy is bound to attend the Class of Natural Philosophy, or to prosecute the study thereof, in the University during at least one year of his tenure of the Scholarship, in such way as the Senatus may direct or approve; and the Scholarship in Chemistry is held under similar conditions as regards attendance on the Class of Chemistry, and the prosecution of the study thereof. The next Competition for these Scholarships will take place at the end of Winter Session 1899-1900.

1898. *S. A. Ellerbek* (Chem.). | *J. T. Young, M.A., B.Sc.* (Nat. Phil.).

XIV.—ROYAL COMMISSION FOR EXHIBITION OF 1851 PHYSICAL SCIENCE SCHOLARSHIP.

The Commissioners for the Exhibition of 1851 give this University the power of nominating a Student to a Scholarship of £150 a-year, tenable for two years, and which may be extended to three years under the following conditions, viz. (*a*) That he is a British subject; (*b*) That he has been a *bona fide* student of Science in this University for three years; (*c*) That he has been for a full year previous to his appointment, and at the date of his appointment is, a student of the University, or has been a student of the University for a full year ending within twelve months prior to the date of his appointment, and since ceasing to be such student has been engaged solely in scientific study. The Scholarship is limited to those branches of Science (such as Physics, Mechanics, and Chemistry) the extension of which is specially important for the national industries, and may be tenable in any University or other Institution to be approved by the Commissioners. Applications must be made annually not later than the 1st of March. See Regulations, p. 544 of CALENDAR for 1891-92.

1897. *Longfield Smith, B.Sc.*

XV., XVI.—THE ARTHUR TREVELYAN SCHOLARSHIPS IN ENGINEERING.

Two Arthur Trevelyan Scholarships in Engineering, of about £15, 12s. per annum, for proficiency in Engineering and the Mechanical and useful Arts, tenable in this University for two years. Candidates must not be more than nineteen years of age, must have passed the preliminary examination or its equivalent, and must not have attended more than one winter and one summer course in Engineering and field work respectively, either in this University or elsewhere. The subjects of examination are (*a*) Mathematics, as far as the subjects required for the first B.Sc. examination in Engineering; (*b*) Physics to the same extent; (*c*) Engineering (the subjects of the previous winter session and field work); (*d*) geometrical drawing and elementary graphics. See Excerpt

from Deed, page 538 of CALENDAR for 1892-93. One Scholarship is awarded annually in November.

1898. Not awarded.

XVII., XVIII.—MISSES BAXTER OF BALGAVIES SCHOLARSHIPS.

These Scholarships were instituted in 1868 and 1878 by Miss Mary Baxter of Balgavies. They are three in number, two of the annual value of £40, the third of £20. They are in the gift of the Directors of the High School of Dundee, and are open for competition to all pupils of that school who shall have finished their course at the time, or within one year previously. The examination is held in Dundee by examiners appointed by the Directors, and the subjects are Geometry, Algebra, Trigonometry, and Mechanical Drawing. The Scholarships are tenable for one year certain, and for a second if a favourable certificate is sent to the Directors by the Senatus Academicus. The patrons may extend the tenure of these Scholarships for a further period of one year, provided the holder shall have previously passed the First Examination for the Degree of Bachelor of Science in the Department of Engineering in this University. The Classes to be attended during the first two years are Mathematics, Natural Philosophy (two courses), Engineering (two courses), and Chemistry, and may (by resolution of the Senatus), be attended in any order most convenient to the scholar, provided he intimate his intentions to the Dean of the Faculty of Science beforehand. In the event of a third year's tenure, the Scholar may attend any two classes selected by himself and approved by the Senatus.

These Scholarships are not to be held with any other Scholarship, Fellowship, or appointment yielding £50 per annum. *See* Deeds of Foundation, at page 255 of the CALENDAR for 1869-70, at p. 372 of CALENDAR for 1878-79, and at p. 377 of the CALENDAR for 1881-82.

1897. *John M. Newton.*

XIX.—GRAY SCHOLARSHIP FOR RESEARCH.[1]

XX.—THE WILLIAM DICKSON TRAVELLING FUND.[1]

XXI.—EARL OF MORAY ENDOWMENT FOR THE PROMOTION OF ORIGINAL RESEARCH.[1]

XXII.—THE SWINEY LECTURESHIP ON GEOLOGY.

This Lectureship is in the patronage of the Trustees of the British Museum, and is of the annual value of £144. The Trustees may appoint any Graduate in any Faculty of the University who has obtained his degree after examination. The office is tenable for five years, at the expiration of which period the Lecturer is ineligible for the next election. The number of lectures is not to be less than twelve

[1] For particulars, see under Faculty of Arts.

in each year, nor more than three in the same week. The course is required to be annually delivered between the first of November and the end of July following, at such public places in the United Kingdom as the Trustees shall approve. The public are admitted without fee. The Lecturer is required at the termination of each course to deposit a copy, or full extract of such course of lectures, with the Principal Librarian of the British Museum, to whom application may be made for further particulars.

Of the foregoing Fellowships, Scholarships, Bursaries, and Prizes, the following are open during 1898-99.[1]

FELLOWSHIPS.[1]

1. *George Heriot Fellowships for Research.*[2]

SCHOLARSHIPS.[1]

1. *Royal Commission for Exhibition of* 1851 *Physical Science Scholarship*, No. XIV., page 265.
2. *The Gray Scholarship for Research*, No. XIX., page 266.
3, 4. *Two Hope Prize Scholarships*, Nos. X. and XI., page 264.
5. *Steven Scholarship in Agriculture*, No. IX., page 263. Candidates to enter names *on or before* 15th March.
6. *Neil Arnott Scholarship for Experimental Physics*, No. XII., page 264.
7. *Arthur Trevelyan Scholarship in Engineering*, No. XV., page 265. Names of candidates to be entered on or before 15th March.
8, 9. *Two Misses Baxter of Balgavies Scholarships*, of £40 each, Nos. XVII. and XVIII., page 266. For particulars apply to Directors of High School, Dundee.

Competitors for Fellowships and Scholarships must have studied the subjects of Examination at the University of Edinburgh. No Fellowship or Scholarship can be held along with any other University Fellowship or Scholarship.

WILLIAM DICKSON TRAVELLING FUND.[3]

EARL OF MORAY BEQUEST FOR THE PROMOTION OF ORIGINAL RESEARCH.[3]

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[1] For further information, and for information regarding other Fellowships, Scholarships, Bursaries, and Prizes, see above, where full information regarding the conditions and values, &c., are given. The values of the Fellowships, Scholarships, Bursaries, and Prizes are subject to variation consequent on the rise and fall of the rate of interest, &c.

[2] Regulations under revision. Apply to David Lewis, Esq., Treasurer to George Heriot's Trust, 20 York Place, Edinburgh.

[3] See under Faculty of Arts.

BURSARIES.[1]

1, 2. *Two Grant Bursaries.*[2]
3. *Jamieson Bursary.*[2]
4. *Sibbald Bursary.*[2]
5-9. *Five Heriot Bursaries.*[2]
10. *Renton Bursary.*[2]
11. *The Donald Fraser Bursary.*[2]
12. *A Baxter of Balgavies Bursary.*[2]

For Bursaries in the patronage of the Town Council, apply to the City Clerk, Council Chambers, Edinburgh.

University Bursaries cannot be held along with any other Bursary.

PRIZES.[1]

1. *The Gunning Victoria Jubilee Prize in Zoology.*[3]
2, 3. *Two Newton Bursaries or Prizes.*[2]
4. *The Kelland Memorial Prize.*[2]
5. *The Lord Rector's Prize.*[2]
6, 7, 8. *The Trustees of Gray's Prize Essay Fund* offer three Prizes, one of £20, £10, and £5 respectively for the first, second and third best Essays on a "Popular exposition of the teaching of Herbert Spencer." No further information will be given. Rev. A. J. B. Paterson, Duns, Secretary to the Trustees.

N.B.—*Scholars, Bursars, or Fellows must apply to the Dean of the Faculty of Science, for Certificates to entitle them to draw the instalments of Science Scholarships, &c., and to the Factor for payment thereof, within three months after they have become payable, otherwise they will be regarded as having resigned. Any who desire to resign must at once announce this to the Dean and to the Factor.*

JAMES GEIKIE, D.C.L., LL.D., F.R.S., &c.,
Dean of the Faculty of Science.

[1] See footnote 1, page 267.
[2] See under Faculty of Arts.
[3] See under Faculty of Medicine.

Programme of Classes.

FACULTY OF DIVINITY.

1898-99.

Dean—Professor TAYLOR.

The Classes will be opened as follows, and will close on 17th March 1899.

Classes.	Days of Opening, and Hours of Lectures.	Professors.	Class Fees.[1]
Divinity	25 Oct., 12 o'cl.	Prof. Flint	£3 3
Ecclesiastical History.	25 Oct., 11 ,,	Prof. Taylor	3 3
Biblical Criticism	25 Oct., 10 ,,	Prof.[2] ...	3 3
Hebrew—Junior Cl.	25 Oct., 1 ,,	Prof. Kennedy.	3 3
Senior Cl.	25 Oct., 2 ,,		3 3
Arabic—Senior Class. (*Mond., Wed., & Frid.*)	26 Oct., 3 ,,		3 3
Syriac—Junior Class. (*Tues. & Thurs.*)	25 Oct., 3 ,,		2 2

THE SUMMER PREPARATORY CLASSES IN ELEMENTARY HEBREW AND ELEMENTARY ARABIC, conducted by the Assistant under the superintendence of the Professor, open on 2nd May, at 10 A.M. and 11 A.M. Fee for Hebrew, £1, 11s. 6d.; and for Arabic, £2, 2s.

GIFFORD LECTURESHIP, for "promoting, advancing, teaching, and diffusing the study of Natural Theology in the widest sense of that term." *Lecturer*—Professor C. P. TIELE, of Leyden.

The arrangements for the Course in 1898-99 will be announced before the beginning of the Session.

GUNNING VICTORIA JUBILEE LECTURES IN NATURAL SCIENCE.

This Course of Three Lectures will be delivered in the Winter Session of 1900-1901.

MATRICULATION, FEES, &c. See pages 27-29.

CURRICULUM FOR THE MINISTRY IN THE CHURCH OF SCOTLAND.

The Laws of the Church of Scotland require that every Theological Student, who desires to qualify himself for the Ministry,

[1] For Second and Third Attendances in Divinity, no reduction. Subsequent attendances free. For Second Attendances on Hebrew, Ecclesiastical History, and Biblical Criticism, no reduction. Subsequent attendances free. Fee in case of Licentiates of Foreign and Colonial Churches, £2, 2s.

[2] Vacant at date of issue.

should attend the Class of *Divinity*, either during *three full and regular Sessions*, or during *two regular and three partial Sessions*;—and also that he should regularly attend during two Sessions each of the Classes of *Hebrew*, *Ecclesiastical History*, and *Biblical Criticism*.

Entrance Examinations.

(1.) Students, before enrolment *for the first year* of their curriculum with a view to the Ministry in the Church of Scotland, must produce to the Professor of Divinity Certificates of their having satisfactorily undergone an Examination in the subjects embraced in the *Curriculum of Arts*, and also in the Elements of Hebrew Grammar. By Act IX. of General Assembly 1872, it is ordained that this Examination shall be conducted at each of the four Scottish Universities, shortly before the commencement of every Session, by four Examining Committees, consisting of members elected by the adjoining Synods, with Conveners nominated by the General Assembly. *The Convener of the Committee for the University of Edinburgh is the Rev. John Alison, D.D., Minister of Newington.* The time of the Committee's meeting and the prescribed subjects of Examination will be timeously advertised in the *Mission Record* of the Church of Scotland.

(2.) Students, before enrolment at the beginning of *every Session after the first* of their Course in Divinity, must produce certificates of their having satisfactorily undergone the Examinations prescribed by their respective Presbyteries. For subjects of Examination prescribed by the *Presbytery of Edinburgh*, see *Appendix to Calendar*.

Discourses.

Every Student of Divinity is required during his curriculum to deliver with approbation *six* discourses upon subjects prescribed by the Professor of Divinity, viz., a Homily, a Latin Thesis, a Lecture, a popular Sermon, a Hebrew Exercise on a passage of the Old Testament, and an Exercise with additions on a passage of the Greek New Testament.

The following Regulations have been made by the Faculty of

Theology in regard to the delivery of these Discourses. (1) Students of the *first* year shall give in their *Homily* to the Professor of Divinity not later than 1st February ; (2) Students of the *second* year shall give in their *Latin* Thesis not later than the 16th December, and shall be prepared to deliver their *Lecture* not later than the 10th January ; (3) Students of the *third* year shall give in their *Hebrew Exercise* and their *Greek Exercise* with additions, not later than the 16th December, and shall be prepared to deliver their *Popular Sermon* not later than the 2nd of February.

Attendance at Foreign Universities.

The General Assembly of 1868, with the consent of a majority of Presbyteries, enacted and ordained:—(1) That all Candidates for the ministry shall attend during at least *two sessions* the Theological Classes at one or more of the Universities of Scotland, and shall deliver, with approbation, the Six Trial Discourses required by the Acts of the General Assembly ; and (2) That any Student who wishes to prosecute the remainder of his Theological Curriculum at any Protestant University or Universities not within the bounds of this Church, shall, before repairing thither, undergo satisfactory examination by the Presbytery with which he is connected, and shall, moreover, satisfy the same Presbytery in regard both to the Classes which he proposes to attend, and to the proficiency he has acquired in the language used in the Foreign University in which he intends to study.

Courses in the Faculty of Divinity.

I. DIVINITY.

PROFESSOR FLINT.

The course of study in this class extends over three Sessions. The Subjects of the Lectures during 1898-99 will be :—1. Theological Introduction, Encyclopædia, and Methodology. 2. Philosophy of Religion. 3. Christian Apologetics.

Lectures will be delivered on Mondays, Tuesdays, Wednesdays, and Thursdays at 12 o'clock. Fridays will be devoted

partly to the hearing of Discourses and Exercises, and partly to Lectures. There will be occasional examinations on "Anti-theistic Theories."

The work of the class includes two written examinations and an essay.

II. HEBREW AND SEMITIC LANGUAGES.

PROFESSOR KENNEDY.

A.—Hebrew.

Junior Class—1 *to* 2.

This class is conducted in two divisions, an upper and a lower. The latter is intended for students having no previous acquaintance with Hebrew, the former for those who have advanced as far as § 30 of the text-book. The Lower Junior will meet for the first time on the day appointed for the opening of the Arts classes, and thereafter on five days a week with the Professor or the Assistant. Text-books: Davidson's *Introductory Hebrew Grammar*, and the book of Genesis in Hebrew.

The Upper Junior will meet for the first time on the day appointed for the opening of the Divinity Classes, and thereafter on three days a week with the Professor or the Assistant. On these days the class will continue the study of the Grammar, including parts of the Syntax (Davidson's *Hebrew Syntax*), and read easy prose passages from the Old Testament. On two days a week the two divisions will meet together for the revision of the Grammar, and for practice in translation into Hebrew.

The students' progress is regularly tested by oral and written examinations throughout the Session.

For Preparatory Class of Elementary Hebrew (see page 269).

Senior Class—2 *to* 3.

Study of Davidson's *Hebrew Syntax*. Hebrew Prose Composition. Reading of unpointed texts (Baer's *Pentateuch*).

Reading and Exposition of portions of the Historical, Poetical, and Prophetical Books of the Old Testament. For Session 1898-99, Judges i.-xviii.; Psalms, Book v.; Joel, Amos.

Discussion of *Critical and Historical* Questions connected with the Books read.

Oral and Written Examinations.

The Senior Hebrew Class will be the Graduating Class in Hebrew for the Ordinary Degree of Master of Arts; and any student who desires to attend this Class with a view to Graduation in Arts must previously pass an examination, in accordance with Sect. IV. subs. 3 of the Regulations.

The examination will include plain passages for translation from and into Hebrew, and grammatical questions.

Those who propose, in a subsequent Session, to take up Hebrew as one of their Graduation Subjects, will have an opportunity of attending the Junior Class in that language during the Session 1898-99.

B.—Arabic—3 *to* 4.

The course of instruction in Arabic extends over one Summer and two Winter Sessions.

(1) A Preparatory Class for elementary Arabic is conducted during the Summer Session by the Assistant, under the superintendence of the Professor. *Intending students of Arabic are strongly advised to take this Class.* Text-books: Socin's *Arabic Grammar* (New Edition, 1895) and Jacob's Bible Chrestomathy. The fee is £2, 2s.

(2) A Junior Class in continuation of the above, meeting three days a week in *alternate* sessions (next in 1899-1900). Text-books: Socin's *Grammar* and Bruennow's *Chrestomathy of Arabic Prose Pieces* (1895). Elementary Arabic Composition.

(3) A Senior Class, meeting three days a week in *alternate* sessions (next in 1898-99), for more advanced reading in prose and poetry, and for the study of Arabic syntax and composition. Text-books (besides those already mentioned): The Koran (Fluegel's edition), Nallino's *Chrestomathia Coranica*, Noeldeke and Mueller's *Delectus Veterum Carminum Arabicorum* (1890), Wright's *Arabic Grammar* (3rd edit., 1896).

The fee for each of these classes is £3, 3s.

C.—SYRIAC—3 *to* 4.

The course of instruction in Syriac extends over two Winter Sessions.

(1) A Junior Class, meeting on two days a week in *alternate* sessions (next in 1898-99), for the study of the grammar and the reading of portions of the Syriac gospels. Text-books: Nestle's *Syriac Grammar* (1889), Syriac New Testament (Peshittâ).

(2) A Senior Class, meeting on two days a week in *alternate* sessions (next in 1899-1900), for the study of syntax and composition and for more advanced reading in prose and poetry, such as the extracts from Bar-Hebræus and Ephrem Syrus in Roediger's *Chrestomathy* (3rd edit.) and the *Vitæ Prophetarum* in Nestle's *Grammar*.

The fee for each of these classes is £2, 2s.

III. ECCLESIASTICAL HISTORY.

PROFESSOR TAYLOR.

1. *Lectures*—Mondays and Tuesdays.—On The Rise and Diffusion of Protestantism.

2. *Lectures*—Wednesdays and Thursdays.—On the Reformation in Scotland to 1572.

3. *Text-book*—Fridays.—Kurtz's "History of the Christian Church." First Division; First Section.

The work of the class includes three written examinations.

For the Regulations of the Vans Dunlop Scholarship in "History,"—value about £100 annually for three years,—see in CALENDAR under "SCHOLARSHIPS IN ARTS" and "SCHOLARSHIPS IN DIVINITY."

IV. BIBLICAL CRITICISM AND BIBLICAL ANTIQUITIES.

PROFESSOR [1]

Professor Charteris intended to occupy next Session, so far as time and circumstances might permit, with (i.) Exegetical and Critical Lectures on the *New Testament*. (ii.) Lectures on the Formation of the Canon. (iii.) Historical and Critical

[1] Vacant at date of issue.

INSERTION, PAGE 274.

IV. BIBLICAL CRITICISM AND BIBLICAL ANTIQUITIES.

PROFESSOR PATRICK, D.D.

In consequence of the resignation of Professor Charteris, the Programme of the Lectures may be modified.

Lectures on Apocryphal Books. (iv.) Lectures on Geographical and Archæological subjects.

There will be written and oral examinations, in which all regular students are required to take part ; and subjects of occasional voluntary essays will also be suggested.

LECTURESHIPS.

I.—GIFFORD LECTURES ON NATURAL THEOLOGY.

Lecturer—Professor C. P. TIELE of Leyden.

These Lectures were endowed by the late Adam Gifford, Senator of the College of Justice, "for promoting, advancing, teaching, and diffusing the study of Natural Theology in the widest sense of that term."

According to the Trust Deed, "the lecturers appointed shall be subjected to no test of any kind, and shall not be required to take any oath, or to emit or subscribe any declaration of belief, or to make any promise of any kind ; they may be of any denomination whatever, or of no denomination at all ; they may be of any religion or way of thinking, or, as is sometimes said, they may be of no religion ; or they may be so-called sceptics or agnostics or free-thinkers ;—provided only that the 'patrons' will use diligence to secure that they be able reverent men, true thinkers, sincere lovers of and earnest inquirers after truth. I wish the lecturers to treat their subjects as a strictly natural science, the greatest of all possible sciences, indeed, in one sense, the only science,—that of Infinite Being, without reference to or reliance upon any supposed special exceptional or so-called miraculous revelation. The lecturers shall be under no restraint whatever in their treatment of their theme. The lectures shall be public and popular, that is, open not only to students of the Universities, but to the whole community, without matriculation."

II.—THE GUNNING VICTORIA JUBILEE LECTURESHIP.

Lecturer—

With a view to promote the study of Natural Science among candidates for the ministry, and to bring out among ministers

the fruits of study in Science, Philosophy, Language, Antiquity, and Sociology, Dr R. H. Gunning, of Edinburgh and Rio de Janeiro, has founded a Lectureship in the Faculty of Divinity of the University of Edinburgh, to be known as "The Gunning Victoria Jubilee Lectureship."

The Gunning Lectureship is a triennial appointment of the value of £100, and the appointment shall be made by the Faculty of Divinity. The lecturer may be any Scottish Presbyterian clergyman at home, or in the Mission field, eminent in Science, Philosophy, Language, Antiquity, or Sociology, and the lectures may be delivered in the University of Edinburgh, or such other place as the Faculty may appoint.

The next appointment will be made at the close of Session 1898-99. See Revised Scheme, p. 519 of CALENDAR 1889-90.

Graduation in Divinity.

REGULATIONS FOR GRADUATION IN DIVINITY.

(*Candidates who began the study of Divinity with a view to Graduation before 1st October* 1896 *are referred to the* CALENDAR *for* 1896-97 *and to previous* CALENDARS.)

I. No one is admitted to examination as a Candidate for the Degree of Bachelor of Divinity (B.D.) unless he be (1) a Graduate in Arts of the University, and have taken a complete Theological Course in a Scottish University or Universities, or in an institution or institutions specially recognised for the purpose by the University Court, or partly in a Scottish University or Universities and partly in such institution or institutions; or (2) a Graduate in Arts of any Scottish University or other University specially recognised as aforesaid, and has completed his Theological Course, of which not less than two years' attendance has been given in this University.

II. The Examiners are the Professors of the subjects included in the examinations, and two additional Examiners appointed by the University Court. The mode of conducting the examination is fixed from time to time by the Senatus Academicus.

By a Supplementary Ordinance it is provided that, notwithstanding the provisions of Section I. hereof, the Senatus Academicus may, under this Section, admit candidates to examination in not more than three of the subjects, after the completion of the second session of attendance on their Theological Course.

III. The subjects of examination are arranged in two departments:—The First Department embracing—(1) Hebrew, and (2) Apologetic

Theology, or the Evidences of Natural and Revealed Religion; and the Second Department embracing—(1) Ecclesiastical History, (2) Systematic Theology, and (3) Biblical Criticism and Biblical Antiquities.

IV. Every Student who at the time when these Regulations came into operation had completed a part of his Theological Course with a view to Graduation as B.D., under Regulations hitherto in force, and shall thereafter complete his course of study in conformity with such Regulations, may become a Candidate for the Degree of B.D. without complying with the provisions of these Regulations.

V. The Degree of B.D. is in no case conferred on persons who have not complied with the conditions hereinbefore set forth, and is not conferred *honoris causâ tantum.*

Candidates are required to communicate their names, together with evidence of their being qualified in terms of the above Regulations, to the Dean of the Faculty of Divinity, at least one week before the first day of the Examination.

The subjects of examination for 1898-99 are as follows:—

DEPARTMENT I.

A.—*For October* 1898.

I. *Hebrew*—
- (1.) Questions in Grammar.
- (2.) Translation into Hebrew Prose.
- (3.) Zechariah.
- (4.) Psalms lxxxiii.-cvi.
- (5.) Exodus i.-xx. (the unpointed text).

II. *Apologetic Theology*—
- (1.) Materialism and Positivism.
- (2.) The Preparation in History for Christianity.
- (3.) The Life and Work of Christ in relation to Apologetics.

B.—*For April and October* 1899.

I. *Hebrew*—
- (1 and 2.) As above.
- (3.) Joel, Amos.
- (4.) Psalms, Book v. (Psalms cvii. ff.).
- (5.) Judges i.-xviii. (the unpointed text).

Candidates will be expected to show some knowledge of the history from the call of Isaiah to beginning of the Exile, and of the textual and historical criticism of the books prescribed.

For April 1899.

II. *Apologetic Theology*—
- (1.) The Relations of Philosophy and the Positive Sciences to Theology.
- (2.) Christianity and Morality.
- (3.) Christianity compared with the Ethnic Religions.

DEPARTMENT II.

For October 1898 *and April* 1899.

I. *Ecclesiastical History*—

(1.) The Main Facts in the Development of the Constitution, Doctrine, and Worship of the Church from 100 to 451 A.D. (2.) The History of the Church in Scotland during the 17th Century.

II. *Systematic Theology*—

(1.) The Sources of Christian Doctrine, and the Place, Functions, Method and History of Christian Dogmatics.

(2.) Christology.

(3.) Soteriology.

III. *Biblical Criticism and Biblical Antiquities*—

Manuscripts, Versions, and Critical Editions of the New Testament. (As in Scrivener's "Introduction.")

The Prophetical books of the Old Testament, from Hosea to the end of the Bible, the contents and their bearing on contemporary critical controversy as to the knowledge of Law and Ritual possessed by those to whom the prophets spoke.

Professor Robertson's "Early Religion of Israel," and Stanley Leathes' "The Law in the Prophets."

"Canonicity," Introduction and Text, pp. i. lxiii. and Text, pp. 53-95.

FEES.

Fee for Degree of B.D., . . .	£5 5
When the Examination is taken at two periods—	
The Fee for the First is . . .	3 3
For the Second, ...	2 2

Any Candidate who fails to pass pays a fee of 10s. 6d. for re-examination in each subject.

TIME-TABLE AND DATES OF ENTERING FOR EXAMINATIONS, 1898-99.[1]

Candidates are required to enter for each periodical Examination at which they desire to appear, and to state the subject or subjects in which they desire to be examined.

1898.

Oct.	11.	Tu.	Names to be entered and fees paid *on or before* this date.[1]
,,	18.	Tu.	Hebrew, 10 a.m. ; Apologetics, 2 p.m.
,,	19.	Wed.	Ecclesiastical History, 10 a.m. ; Divinity, 2 p.m.

[1] When names are not entered, and fees paid, on or before the stated dates, an additional or late-entry fee of ten shillings must be paid before the Candidate can be admitted to examination. A Candidate is not held to be entered for the Examination until his name is entered, the fee paid, and all the necessary certificates, &c., lodged.

1898.			
Oct.	20.	Th.	Biblical Criticism, 10 a.m.
1899.			
Mar.	21.	Tu.	Names to be entered and fees paid *on or before* this date.[1]
,,	28.	Tu.	Hebrew, 10 a.m. ; Apologetics, 2 p.m.
,,	29.	Wed.	Ecclesiastical History, 10 a.m. ; Divinity, 2 p.m.
,,	30.	Th.	Biblical Criticism, 10 a.m.

Every Candidate for Examination or for Graduation must matriculate for the Academic year in which he appears for examination or for Graduation, and pay the Fee of £1 for Registration as a Member of the General Council (if not already a Member) *at least one clear day before the date of Graduation.*

The fees for Matriculation, for Examinations for Degrees, and for Registration of Graduates as Members of the General Council are payable at the Matriculation Office, University. When Candidates cannot attend personally to pay the fees, they should transmit them to T. GILBERT, University, Edinburgh, by *Post Office* or *Postal Orders*, or by *Bank Drafts*, crossed "*Union Bank of Scotland* (*Hunter Square Branch*), *Edinburgh*," and not by cheques on private accounts.

THE DEGREE OF BACHELOR OF DIVINITY.

31st July 1897.

Lauchlan MacLean Watt, M.A.

13th April 1898.

David Macrae Aitken, M.A.
Alexander Cockburn Buchanan, B.A.
Alexander Maclennan Gordon, M.A.
Alexander Buchanan Macdonald, M.A.
Archibald Paterson, M.A.
William Walker Reid, M.A.

DEGREE OF DOCTOR OF DIVINITY (D.D.).[2]

The Degree of Doctor of Divinity is conferred *honoris causâ tantum*, —and is granted in absence in special cases only. The Register of Doctors of Divinity begins in 1709, with the names of Edmund Calamy, Daniel Williams, and Joshua Oldfield. The names of Evans, Harris, and Isaac Watts follow in 1728. The Register now includes above 300 names.

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[1] See footnote, p. 278.

[2] Those to whom the Degree has been offered, if unable to be present at the Graduation Ceremonial immediately ensuing, may present themselves at any subsequent ceremonial, on giving at least a week's notice.

The following is a list of those who have received the Degree of Doctor of Divinity in the years 1889-98 inclusively[1] :—

1889.

*Griffith John.
*Professor Abraham Kuenen.
Archibald Henry Sayce, M.A.
Norman M. L. Walker.

1890.

David Douglas Bannerman.
R. H. Lundie, M.A.
Canon J. H. Overton.

1891.

Richard Glover.
Robert Hutton, M.A.
*John Gibson Paton.
D. W. Simon, M.A., Ph.D.

1892.

William Balfour.
Cornelius Giffen.
Newham Hall.

1893.

Thomas Nicol, B.D.
Thomas B. W. Niven.
George Adam Smith.
James Wells, M.A.

1894.

William Hastie, M.A., B.D.
J. A. M'Clymont, M.A., B.D.
J. C. M'Phail.
William Muirhead.

1895.

Robert G. Balfour.
*Alexander Marshall, M.A.
Charles Moinet, M.A.
John Patrick, M.A., B.D.
J. Guinness Rogers, B.A.
*David Sidey.

1896.

Rev. Charles Gore, M.A.
Rev. William Miller, C.I.E., LL.D.
Rev. David Clement Scott, M.A., B.D.
Rev. Alexander Williamson.

1897.

Rev. Professor H. M. Gwatkin, M.A.
Rev. J. B. Hastings, M.A.
Rev Professor W. P. Paterson, M.A., B.D.
Rev. R. J. Sandeman.

13th April 1898.

M. Henri Bois, Professeur de la Faculté Protestante de Montauban.
Rev. Alexander Martin, M.A., Professor of Apologetics and Pastoral Theology, New College, Edinburgh.
Rev. Peter Thomson, M.A., B.D., Minister of Dunning.

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[1] The names of those who received the Degree, prior to 1859, will be found in the "Catalogue of the Graduates in the Faculties of Arts, Divinity, and Law of the University, since its foundation," published in 1858, and the names of those who received the Degree from 1859 to 1888, both years included, will be found in the List of Graduates, published in 1889. * Conferred *in absentia.*

Bursaries, Scholarships, Fellowships, &c.

I.—BURSARIES.

A.—Presentation Bursaries.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	Years.	Annual Allowance to each Bursar.	Patrons.
I.	1703	Agnes Nairne.	£3 0 0	1	1	..	Senatus Academicus.
II.	1715 1764	Sir James M'Lurg of Vogrie, sometime Dean of Guild of Edinburgh; and Rev. John Penman, Minister of Bothkennar.	20 6 8	1	4	£20 8	Capt. R. G. G. Gilmour of Craigmillar, 1st and 3rd Presentations. The Dean of Guild of Edinburgh, 2nd Presentation. Heirs of William Brown, surgeon, 4th Presentation.
III.	1766	Rev. Robert Alexander, Minister of Girvan.	About 19 0 0	1		About 19 0 0	Kirk-Session of Girvan and Presbytery of Ayr.
IV.	1838	Robert Blair, D.D., Barton St Andrews, Norfolk	16 0 0	1		16 0 0	Governors of George Heriot's Trust.
V.	1838	Do. Do	About 23 0 0	1	4	About 23 0 0	The Principal, and Profs. of Hebrew, Divinity, Church History.

I. In abeyance at present.

II. The *M'Lurg and Penman Bursary* is tenable for four years at the Theological Classes. No person shall be presented to the Bursary who is not a Master of Arts of a Scottish University.

III. This Bursary consists of the interest of £420, lent on heritable security, and of £75, 17s. of accumulated interest. It must be held by a Student from the parish of Girvan, presented by the Session; whom failing, by one within the Presbytery of Ayr, to be appointed by the Presbytery.

IV. The *Blair Bursary* can be held only by a young man who has been educated in George Heriot's Hospital School, and has become a Student of Divinity in the University of Edinburgh.

V. To be applied for the benefit of a Student of Divinity, whether a graduate or not. *Bursar—*

B.—Competition Bursaries.[1]

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patrons.
I.	1646	Buchanan of that Ilk.	£22 16 8	1	3	£22 16 8	Town Council.
II.	1666 1685	William Struthers & Archbishop Leighton.	23 7 9	1	3	23 7 9	Do.
III.	1687	Andrew Ramsay and Sir Andw. Ramsay of Abbotshall.	16 13 4	1	3	16 13 4	Do.
IV.	1695	King William III.	50 0 0	2	2	25 0 0 About	Senatus Academicus.
V.	1867	Miss Mary Ettles of Inverness.	109 0 0	3	3	36 6 8	Senatus.
VI.	1873	Grierson of Ogscastle's Trustees.	80 0 0	3	1	26 13 4 About	Senatus.
VII.	1878	Mrs Isabella Webster.	150 0 0	2 1	3 3	49 18 4 33 7 4	Senatus.
VIII.	1878	Dr Andrew Thomson	100 0 0	4	4	25 0 0	Trus. of Dr Thomson.
IX.	1879	Mrs Barbara Mylne.	30 0 0	1	3	30 0 0	Moderator, Procurator, and Principal Clerk of General Assembly.
X.	1838	J. Stewart Hepburn of Colquhalzie, Esq.	13 2 6	1	3	13 2 6	Committee of the Presbytery of Edin.
XI.	1858	Do. Do.	13 2 6	1	3	13 2 6	Do.
XII.	1864	Do. Do.	13 2 6	1	3	13 2 6	Do.
XIII.	1882	William Renton.	20 0 0	1	3	20 0 0 About	Profs. of Theology.
XIV.	1884	Robert Hunter.	33 15 0	2	2	16 17 6	Principal and Profs.
XV.	1889	James Simson, Edinburgh.	175 0 0 About	7	3	25 0 0 About	Presbytery of Edinburgh.
XVI.	1892	Thomas Lockerby, London.	32 0 0	1	3	32 1 0	Senatus.
XVII.	1856	John Sharp, Esq., Perth.	18 0 0	1	4	18 0 0	The Presbytery of Perth.

I. The Buchanan Bursary is open for competition to all Masters of Arts of any of the Universities of Scotland, or to Students who have passed the necessary Examinations for the Degree of M.A., but have deferred their Graduation with a view to Honours, and who are entering on their first or second Session in the Faculty of Divinity in the University of Edinburgh. No person is admissible to competition who has for more than one Session been a Student in the Faculty of Divinity in any of the Scottish Universities. The Bursar holds the Bursary for three years, subject to this condition, that he shall, during that period, give regular attendance, as a Student of Theology, in the University. If it appears to the Senatus Academicus desirable, for the purpose of distributing the benefits of competitive Bursaries in Theology among Students of different years, it is lawful, for that purpose only, to appoint a Student for a shorter period. No person can hold the

[1] The values of these Bursaries are subject to deduction of the fees paid to the Examiners.

Bursary along with any other Bursary, Fellowship, or Scholarship in any Scottish University. *Bursar*—1896, *William Marshall Low, M.A.*

II. The Struthers and Leighton Bursary is open by competition to all Students who are Masters of Arts, or who have passed all the examinations necessary for admitting them to the degree of Master of Arts, and who are entering on their first session of attendance in the Faculty of Divinity in the said University. *Bursar*—1897, *James Black, M.A.*

III. By Ordinance, No. 81, of the Univ. Com., and subsequent Order in Council, the regulations for this Bursary are the same as those for the Buchanan Bursary. —Vacant.

IV. By Ordinance, No. 76, of the Universities' Commissioners, and subsequent Order in Council, each King William Bursary is open to competition to all Masters of Arts of any of the Universities of Scotland, or Students who have passed the necessary examinations for the Degree of M.A., and who have attended for one Session, and no more, in the Faculty of Divinity in the University of Edinburgh: Provided that no person shall be a competitor who has attended for one or more Sessions in the Faculty of Divinity in any other of the Scottish Universities. The examinations in the competition shall be conducted by the Professors in the Faculty of Divinity in the University. Each Bursar shall hold his Bursary for two years, subject to the condition that he shall, during that period, give regular attendance as a Student of Theology in the University. No person shall hold either of the Bursaries along with any other Bursary, Fellowship, or Scholarship of any Scottish University. When the two Bursaries fall vacant at one time, one Bursar shall be appointed for two years, and the other for one year. *Bursar*—1896, *W. L. Webster.*

V. Founded in memory of her brother, J. Ettles, Esq., of Havannah. Open to those who have passed all the examinations for M.A., and are in the first year of their theological course. Cannot be held with any other Bursaries or Scholarships. *See* Deed of Foundation in CALENDAR for 1867-68. *Bursars*—1897, *Richard Bell, M.A.; C. G. Mackenzie, M.A.*

VI. As in the case of the Faculty of Arts (see No. XLVII.), a student from the parishes of Crawford or Leadhills, is, if found duly qualified in respect of attainments, appointed to a Bursary in his first year, and holds it (unless he has failed to show himself a diligent student) to the end of his Theological curriculum. Failing any student from those favoured parishes, the Bursary or Bursaries will be thrown open to competition, but the winner only holds his Bursary for one year in each case. In the second and third years a student from Crawford or Leadhills has again a preference, but holds the Bursary for one year only. Preferential candidates to lodge their applications with the *Clerk of Senatus* on or before 1st November. *See* p. 372 of CALENDAR, 1877-78. *Bursars*, 1897—First year, *Donald Lamont;* Third year, *W. W. Reid, M.A.*

VII. Founded by Mrs Isabella Webster, 38 Heriot Row, Edinburgh, in

memory of her husband, George Webster, Esq. There are three Bursaries,—two of about £43 each, and one of £37, 10s., open to Students of Divinity in connection with the Church of Scotland in their first year, who have successfully passed all their Examinations for the degree of M.A. in any Scottish University, whether they have actually graduated or not. Each is tenable for three years. *See* Deed of Foundation in CALENDAR for 1878-79, p. 377. *Bursar*—1897, *John Dickie, M.A.*

VIII. *Preferential Candidates* for the Thomson Bursaries must apply to Messrs Traquair, Dickson & Maclaren, 11 Hill Street. Candidates of the name of Thomson or Traquair, or natives of the town or county of Dumfries, or of the city of Edinburgh, preferred. The subjects of Examination are Latin and Classical Greek, Mathematics and Natural Philosophy, Mental Philosophy (including Logic) and Moral Philosophy and Elementary Hebrew, Apologetics, and Greek Testament. *See* p. 374 of CALENDAR for 1880-81. *Bursars*—1895, *William Simpson, M.A.* 1896, *Alex. R. Yeoman, M.A.*

IX. *Mylne Bursary.*—Founded by Mrs Barbara Macaulay or Mylne, in memory of her husband, the Rev. Andrew Mylne, minister of the parish of Dollar. The Bursary (being the free proceeds of £750) which is for behoof of Students for the ministry of the Church of Scotland, of Scottish birth, tenable during the curriculum in Divinity, is awarded at the end of the session, after examination (of first year's students) on the subjects taught in the Theological Classes during the session. No one may become a Candidate who has not given his whole time to study during the session preceding the date of Examination, nor may the holder engage in paid work during any session in which he holds the Bursary. It cannot be held along with any other Bursary, Scholarship, or Endowment. *See* Deed of Foundation at page 377 of CALENDAR for 1880-81—Vacant.

X., XI., and XII. The sums attached to these Bursaries are payable to Divinity Students of the Church of Scotland of the first or second year towards the expense of their education at the University of Edinburgh. Each is tenable for three years. For one bursary Gaelic-speaking students have a preference.

XIII. Founded by the late William Renton, of 20 Royal Terrace, Edinburgh. The Faculty of Theology are the Patrons and Trustees. The Bursary may be held for three years, if the Bursar continues so long to prosecute his studies in Theology at the University of Edinburgh, with a view to the ministry in the Church of Scotland, and if not, then for the whole period he continues at the same. The student presented must have attained the age of sixteen, and not exceed the age of twenty-one years, and must be appointed after an examination in the month of November on such subjects as the Professors of the Faculty of Theology consider proper. *Bursar—L. M'Glashan, M.A.* (Preferential).

XIV. Founded by the late Robert Hunter, Dalhousie, Chesters; the Principal and Professors being Patrons. These Bursaries are for the benefit of Students of the Church of Scotland, and are awarded at close of first Session in Divinity, and are tenable for two years. Bursars must attend two Sessions in Chemistry and Geology, taking at least one of these Classes each Session. Students of the name of Hunter and Hamilton from the parishes of Temple or Cockpen have

a preference, but preferential Candidates must attain to a fixed percentage. Bursars must produce certificates of diligence in the Classes of Chemistry and Geology. See excerpt from Deed of Foundation, page 437 of CALENDAR for 1885-86. Vacant.

XV. These Bursaries are open to Students who are entering on their first Session in Divinity, and are tenable for three years. For further details and subjects of examination (which differ somewhat from the University Examination for first year's Bursaries), apply to the Rev. Dr Langwill, Currie, or to the Rev. John Patrick, Greenside, Edinburgh. *Bursars*—1895, *A. C. Buchanan; A. W. Mitchell.* 1896, *Gavin Millar; J. L. Buchanan.* 1897, *John Dickie, M.A.; A. J. Campbell, B.A.*

XVI. Founded by the late Thomas Lockerby, Esq., London. The Bursary is tenable for three years, and is open to "Students who desire to become ministers of the Church of Scotland only." *See* Excerpt from Disposition, page 545 of CALENDAR for 1890-91. *Bursar*—1895, *D. Denholm Fraser, M.A.*

XVII. *Sharp Bursary.*—This Bursary is of the annual value of £18, tenable for four years. The Bursar must be a Student of Divinity of the Church of Scotland, and may prosecute his studies at any one of the Scottish Universities. Preference to any student being a native of or subject to the jurisdiction of the Presbytery of Perth. Apply to the Clerk to the Presbytery of Perth.

C.—PRESENTATION BURSARIES, open only to Graduates or Students who have passed the necessary Examinations for the Degree of M.A., but have deferred their Graduation with a view to Honours.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patrons.
I.	1695	Robert Bayne of Pitcairley.	£25 0 0	1	3	£25 0 0	Society of Sons of the Clergy.
II.	1695	James Nairne.	16 13 4	1	3	16 13 4	Prof. of Divinity.

I. By Ordinance, No. 71, of the Universities' Commissioners, and subsequent Order in Council, the following are the regulations as to this Bursary:—Each Bursar shall hold the Bursary for three years, subject to the condition that he shall, during that period, give regular attendance as a Student in Theology in the University of Edinburgh. No person shall hold the Bursary along with any other Bursary, or with any Scholarship in the University. *Bursar—John Wallace, M.A.*

II. This Bursary is tenable for three years, or for such period as the Bursar shall give regular attendance as a Student of Theology in the University of Edinburgh. *See* Ordinance, No. 67, of the Universities' Commissioners, and subsequent Order in Council. *Bursar*—1896, *J. C. Mack, M.A.*

D.—BURSARIES gained in Faculty of Arts, the holders of which are at liberty to study in the Faculty of Divinity.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patrons.
I.	1809	Dr Donald Grant, London.	£180 0 0 About	4	4	£45 0 0 About	Dr Grant's Trustees.
II.	1846	John Jamieson, Edinburgh.	26 0 0 About	1	4	26 0 0 About	Principal and two Professors.
III.	1871	The Sibbald Trustees.	150 0 0	5	3	30 0 0	The Trustees of Dr J. R. Sibbald.
V.	1889	Daniel Maclaurin, London.	62 10 0	1	4	62 10 0	Town Council.

I. *See* under Faculty of Arts.
II. *See* under Faculty of Arts.
III. *See* under Bursaries in Arts.
IV. *See* under Faculty of Arts.

II.—PRIZES.

I.—BARTY MEMORIAL PRIZE.

The Barty Memorial Prize of £20 for scholarship in Hebrew and Hellenistic Greek is open to entrants to the Divinity Halls of the four Scottish Universities.

II.—HEPBURN PRIZE.

The Hepburn Prize of £25 (which may be divided), open to all Students in actual attendance at the Divinity Hall, may be awarded annually for an essay on a prescribed subject.

III.-XII. THE GUNNING VICTORIA JUBILEE PRIZES.

With a view to promote the study of Natural Science among candidates for the ministry, and to bring out among ministers the fruits of study in Science, Philosophy, Language, Antiquity, and Sociology, Dr R. H. Gunning, of Edinburgh and Rio de Janeiro, has founded ten prizes in the Faculty of Divinity of the University of Edinburgh, to be known as "The Gunning Victoria Jubilee Prizes."

These prizes are ten in number, and comprise a series of five prizes of £50, £40, £30, £20, and £10, for excellence in Theological subjects, and a series of five prizes of similar values for excellence in Natural Science subjects. In their order the prizes in each series correspond in value. A minimum standard of proficiency will be required in each series. The successful competitors may each take both the prize in the Theological, and the prize in the Natural Science series to which their marks may respectively entitle them.

The prizes are competed for triennally at the close of the Divinity Session, and are open to all Students of the Church of Scotland, or other Scottish Churches holding the Confession of Faith, who are gradu-

ates of this University, or have attended two classes in the Faculty of Divinity in this University, and who have completed their Theological curriculum within two years of the close of the session when the competition takes place.

The examination in the Natural Science series will be on Natural History, Botany, and Geology, and of the same standard as the First B.Sc. Examination in Pure Science. The examination in the Theological series will be in Theology proper, the Language and Literature of the Old Testament, Ecclesiastical History, and Biblical Criticism.

The Examiners are the Professors of the subjects of examination in the University of Edinburgh; with the addition of a member of the Senatus of the New College, to be appointed by the Faculty of Divinity. See Revised Scheme, p. 519 of CALENDAR 1889-90.

The next examination under this scheme will be held at the close of Session 1898-99.

1896. *Theological Series*—1st Prize—Thomas Pullar, B.D.
2nd ,, William Smith, B.D.
3rd ,, John Henderson, B.D.
4th ,, George Drummond, B.D.
5th Prize not awarded.

Natural Science Series—1st Prize—Thomas Pullar, B.D.
2nd Prize not awarded.
3rd ,, William Smith, B.D.
4th ,, George Drummond, B.D.
5th ,, John Henderson, B.D.

III.—SCHOLARSHIPS.[1]

I.—PITT CLUB DIVINITY SCHOLARSHIP.

This Scholarship was instituted in 1862 by the Pitt Club, is of the annual value of £107, 11s. 2d. (under deduction of Examiners' fees), and is tenable for three years. By Ordinance No. 77, of the Universities' Commissioners, this Scholarship is open to competition to all Masters of Arts of any of the Universities of Scotland who have given regular attendance in the Faculty of Divinity in the University of Edinburgh for three complete Sessions, and who are in the course of

[1] It has been agreed by the Senatus and the Faculty of Divinity, in regard to the Fellowships and Scholarships of the funds of which they are severally the administrators, that

1. The *Pitt Theological Scholarship* shall be competed for when it falls vacant.
2. The *Aitken Theological Scholarship* shall be reserved from competition when it falls vacant in the same year with the Pitt.
3. The *Glover Divinity Scholarship* shall (according to its conditions) not be open to competition when the Pitt or Maxton may be open, and shall be similarly reserved when the Aitken is open.
4. That meanwhile the *Maxton* be competed for when it is vacant.

studying, with the view of becoming Clergymen of the Church of Scotland. No person is admissible who has been entered as a Student of Divinity more than six years prior to the time of the competition.

Candidates are examined on (1) The Evidences of Revealed Religion; (2) Systematic Theology; (3) Hebrew; (4) Church History; (5) Biblical Criticism. It cannot be held with any other Scholarship, Fellowship, or Bursary of any Scottish University, or along with any parochial or pastoral charge, whether as minister or assistant.

1898. *Alexander M. Gordon, M.A.*

II.—MAXTON DIVINITY SCHOLARSHIP.

This Scholarship was founded by the Trustees of the late John Maxton, Esq., in 1867, is of the annual value of £42, 8s. (under deduction of Examiners' fees), and is tenable for three years. It is open only to Students who are members of the Established Church of Scotland, and who have completed the course of study in the Faculty of Divinity in the University of Edinburgh. *See* Deed of Foundation, at p. 234 of CALENDAR for 1867-68.

1896. *W. R. Henderson, M.A., B.D.*

III.—THE GLOVER DIVINITY SCHOLARSHIP.

This Scholarship was founded in 1875 by Subscribers to a Fund for commemorating the memory of the Rev. W. Glover, D.D., and by the University Endowment Association. It is of the annual value of about £36, 10s. (under deduction of Examiners' fees), tenable for three years, and open to all Masters of Arts of any of the Universities of Scotland who have finished their study of Theology, before entering the Church of Scotland, within six years, and who have attended the last Session of their course at least in the University of Edinburgh. It cannot be held with any other Divinity Scholarship or Bursary in any Scottish University, and it is not offered for competition in any year where there is a vacancy in the Pitt Divinity Scholarship or the Maxton Divinity Scholarship. *See* Deed of Foundation, at p. 343 of CALENDAR for 1875-76.

1894. *Robert Venters, M.A., B.D.*

IV.—THE AITKEN THEOLOGICAL SCHOLARSHIP.

This Scholarship, founded in 1875 by bequest of the Rev. David Aitken, D.D., formerly minister of Minto, is of the annual value of £100, 2s. 6d. (under deduction of Examiners' fees). Its purpose is to make provision for the study of Church History and Biblical Criticism at one or more University Seats in Germany, or elsewhere on the Continent of Europe, in the case of meritorious students at Edinburgh University. It is to be awarded, after competitive examination (on due proficiency being shewn), to a Student in Divinity of the University of

Edinburgh, who is a Graduate in Arts of that University of not more than four years' standing. It is tenable for two years; but the Senatus may extend the term for another year if it appear to them desirable. The time of the competition to be fixed and publicly intimated by the Senatus at least three months before; and the Senatus are also at liberty to prescribe whether one Semester or two Semesters in the foreign University shall be attended in each year. It is not offered for competition in the same year as the Pitt Divinity Scholarship or the Glover Divinity Scholarship. *See* Deed of Foundation at p. 344 of CALENDAR for 1876-77.

1895. *William Smith, M.A.*

V.—THE DAVID KIDD DIVINITY SCHOLARSHIP.

This Scholarship, which is of the annual value of £36 (under deduction of Examiners' fees), is tenable for three years, and is awarded, after competitive examination in Theology (same as for B.D.), to students of any of the Universities of Scotland who are natives of Scotland, and who have finished their course of study with the view of becoming Ministers of the Church of Scotland. *See* Deed of Foundation in CALENDAR for 1879-80, p. 354.

1898. *Alexander W. Mitchell, M.A.*

VI.—VANS DUNLOP SCHOLARSHIP IN HEBREW AND ORIENTAL (SEMITIC) LANGUAGES.

The Competition is open to all who have been Matriculated Students for not less than two years in this University, and not more than six years altogether in this or any other University; and who have attended at least two courses under the Professor of Hebrew and Oriental Languages. For General Regulations, see under Faculty of Arts.

Candidates will be examined in Hebrew, Syriac, and Arabic.

The Examiners are the Professor of Hebrew and Semitic Languages, and an Examiner appointed by the Senatus. The next Competition will take place at the end of Winter Session 1898-99.

1896. *Andrew Tweedie, M.A.*

VII.—VANS DUNLOP SCHOLARSHIP IN HISTORY.

(*See Scholarships in Faculty of Arts.*)

VIII.—BRUCE OF GRANGEHILL AND FALKLAND SCHOLARSHIPS.

These Scholarships were founded in 1865 by Mrs Tyndall Bruce of Falkland, and are of the annual value of £100. They come into operation only when a vacancy occurs in any one of the three Scholarships of this name in the Faculty of Arts, by the death, resignation, or dismissal, of a Scholar during the period of his tenure of the Scholar-

ship; and are tenable in this Faculty during the remainder of that period. They cannot be held with any other Scholarship or Fellowship of a Scottish University, or with any situation yielding an income of £100 a year. The subjects of Examination are prescribed from time to time by the Faculty.

1898. *William W. Reid, M.A.*

IX. and X.—THE JEFFREY SCHOLARSHIPS.

These Scholarships, two in number, were founded in 1887 by Miss Jane Jeffrey of Victoria Terrace, Portobello. They are each of the annual value of about £73, 2s. 6d. (under deduction of Examiners' fees), and are tenable for one year. They are awarded annually for special proficiency in the subjects embraced in each of the four departments of Divinity, Hebrew and Semitic Languages, Ecclesiastical History, and Biblical Criticism; and are open to Students of Divinity in connection with the Church of Scotland who shall have given regular attendance for at least one Session on the Divinity Classes in this University, including the class with which the Scholarship competed for is specially connected. They are competed for in the following order:—first year, Divinity, and Hebrew and Oriental Languages; second year, Ecclesiastical History and Biblical Criticism; and so on from year to year. The Examination at the close of Session 1898-99 is in Divinity and Hebrew and Oriental (Semitic) Languages. *See* Deed at page 497 of CALENDAR for 1888-89.

1898. *Ecclesiastical History*—Alexander C. Buchanan, B.A.
Biblical Criticism—William W. Reid, M.A.

XI.—COBB SCHOLARSHIP.

This Scholarship, founded in 1889, is a bequest by the late Miss Matilda Johnston Cobb, Broughty Ferry. It is of the annual value of £32, 10s. (under deduction of Examiners' fees), and is tenable for three years. The subjects of Examination are Hebrew, Greek, Latin, and Mathematics, and the Scholarship is open to competition amongst Students who are entering on the study of Divinity with a view to becoming Ministers of the Church of Scotland.

1896. *Samuel S. Sanderson, M.A.*

XII. GRAY SCHOLARSHIP FOR RESEARCH.[1]

XIII.—THE SWINEY LECTURESHIP ON GEOLOGY.

This Lectureship is open to Graduates in any of the Faculties in the University who have obtained their Degrees after examination. For further particulars, see page 266.

[1] For particulars, see Scholarships in the Faculty of Arts.

SCHOLARSHIPS, BURSARIES, AND UNIVERSITY PRIZES, OPEN FOR COMPETITION IN THE FACULTY OF DIVINITY DURING THE ACADEMIC YEAR COMMENCING 1ST OCTOBER 1898.[1] [2]

I. SCHOLARSHIPS.

1. *Vans Dunlop Scholarship in Hebrew and Oriental* (*Semitic*) *Languages.* No. VI., page 289. The competition will take place on *Tuesday*, 28*th March* 1899, and following days, beginning at 10 A.M. each day. Names to be entered *on or before* 15th March.

The following are the subjects of examination :—

(*a*) *Hebrew* (two papers).—Introduction to, and translation, criticism, and exegesis of Psalms, Books III. and IV., Judges and Zechariah. Hebrew Grammar and Composition. Some of the passages set will be unpointed.

(*b*) *Syriac* (one paper).—Rödiger's *Chrestomathia Syriaca*, extracts I.-IV., VIII., IX.; St Mark's Gospel (Peshittâ). Syriac Grammar and Composition.

(*c*) *Arabic* (one paper).—Bruennow's *Chrestomathy of Arabic Prose Pieces*, pp. 1-22, 44-55; *The Kor'ân*, third Sûra. Arabic Grammar and Composition.

2. *Vans Dunlop Scholarship in History.* See No. XXX., page 174.

II. PRESENTATION BURSARIES.

1. *The Blair*, No. IV., page 281.
2. *The Bayne*, No. I., page 285. May be open.

III. COMPETITION BURSARIES.

The Bursary Examination at the beginning of Session 1898-99 will be held on Friday, 4th, and Saturday, 5th November, commencing at 10 A.M. each day, when the following Bursaries will be open for competition :—

1. *The Ramsay Bursary*, No. III., page 282.
2. *The Lockerby Bursary*, No. XVI., page 282.
3. *One Webster Bursary*, of the annual value of about £48. See No. VII., page 282.
4. *One Thomson Bursary*, No. VIII., page 282.

The subjects of examination for the above, and for *any other ordinary*

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[1] *Note.*—None of the undernoted Bursaries or Scholarships can be held along with any other Bursary, Fellowship, or Scholarship in any Scottish University. None of the after-mentioned Prizes are subject to this condition.

[2] The values of the Scholarships, Bursaries, and Prizes are subject to variation consequent on the rise or fall of the rate of interest, &c. For further information and for information regarding other Scholarships, Bursaries, and Prizes, &c., see above.

competition Bursary for first year's Students that may be vacant at the opening of the Session will be—

(1.) *Latin*—Tacitus' "Germania," and translation from English into Latin prose.
(2.) *Greek*—Euripides' "Alcestis," and Thucydides, Book I.
(3.) *Mathematics*—"Euclid," Books I.-VI.; Algebra and Elementary Trigonometry.
(4.) *Metaphysics*—Ferrier's "Lectures on Greek Philosophy."
(5.) *Moral Philosophy*—Seth's "Study of Ethical Principles."
(6.) *Natural Philosophy*—Blaikie's "Elements of Dynamics," and Balfour Stewart's "Elementary Physics."
(7.) *Hebrew*—Davidson's Grammar and Exercises.
(8.) *Apologetics*—Flint's "Antitheistic Theories."
(9.) *Greek Testament* — Acts, Epistles to Ephesians, and Philippians.

5, 6, 7. *Grierson Bursaries*, No. VI., page 282.

The subjects of examination for the Grierson Bursaries, if there be competition, will be :—

For the *first* year—

Same as for ordinary Competition Bursaries, except that *Hebrew*, *Apologetics*, and *Greek Testament* are omitted.

For the *second* year—

(1.) *Latin*—Lucretius, Book V., and Livy, Book II.
(2.) *Greek Testament*—Gospel of St Matthew and 2 Corinthians.
(3.) *Hebrew*—Grammar; Joshua, chapters i.-x. inclusive; Psalms i.-viii. inclusive; Hebrew Prose Composition.
(4.) *Divinity*—The Doctrine of the Kingdom of God; Doctrine of the Church.
(5.) *Ecclesiastical History*—To 325 A.D.
(6.) *Biblical Criticism* — Charteris' Croall Lectures on "The Christian Scriptures."

For the *third* year—

(1.) *Apologetic Theology*—Butler's "Analogy."
(2.) *Hebrew*—Class Work of preceding Winter Session.
(3.) *Ecclesiastical History*—To 325 A.D., and of Scotland, 1500 A.D. to 1600 A.D.
(4.) *Biblical Criticism*—"Canonicity," Text 1 to 73.

8, 9. *Two Simson Bursaries*, No. XV., page 282.

10. *A Hepburn Prize*, £25 (which may be divided), for the best Essay on "Christian Theism," to be competed for by Students of second or subsequent year. The Essay not to exceed fifty pages 4to, and to be handed to Rev. Dr Scott, 16 Rothesay Place, Edinburgh, on or before 1st December 1898.

11. *Barty Memorial Prize*, of about £20, for Scholarship in Hebrew and Hellenistic Greek, is open to entrants to the Divinity Halls of the four Scottish Universities. Competitors to apply to J. W. Barty, Esq., Dunblane.

12-14. *Three Hepburn Bursaries* (each about £14), open for competition by all Students of first or second year in Divinity. For one of these, preference given to Gaelic-*speaking* Students. Subjects of Examination: Butler's "Analogy," and Lightfoot's "Epistle to the Galatians," with the Introduction, Notes, and Dissertations. For particulars, apply to the Rev. Dr Scott, minister of St George's, Edinburgh, or Rev. Dr Langwill, Currie, Clerk of the Presbytery of Edinburgh.

15. *Maclaurin Bursary* (restricted to Candidates of the name of Maclaurin), of about £62, 10s. a year, and tenable for five years in any of the Faculties. Examination as for First Year Open Bursaries in Arts. Apply to the Town Council of Edinburgh for information regarding this, and the other Bursaries in their patronage.

At the close of Session 1898-99, the following Scholarships and Bursaries may be open for competition :—

1. *The Aitken Scholarship*, No. IV., page 288.

2, 3. *Two Jeffrey Scholarships*, Nos. IX. and X., page 290.

The subjects of Examination are :—

Hebrew—

1. Judges i.-ix. (with Moore's *Commentary*), Zechariah, Psalms cvii.-cxxxix. Hebrew Grammar and Composition.
2. Syriac: St John's Gospel and the Biblical extracts in Roediger's Chrestomathy. Grammar and easy sentences to translate into Syriac.
3. Arabic: Jacob's Bible Chrestomathy and Bruennow's Chrestomathy, pp. 1-22. Grammar and easy sentences to translate into Arabic.

Divinity—

1. The History of Christian Apologetics in England and Scotland.
2. Newman's "Lectures on the Doctrine of Justification," and O'Brien's "Sermons on the Nature and the Effects of Faith" (exclusive of the Notes).
3. Professor Salmond's "Christian Doctrine of Immortality."

4. *One King William Bursary*, No. IV., page 282. The subjects of examination for this Bursary will be the work of the Session in the Classes of Divinity, Ecclesiastical History, Biblical Criticism, and Junior Hebrew.

5, 6. *Two Robert Hunter Bursaries*. See No. XIV., page 282. The subjects of examination are the same as for the King William Bursary. These Bursaries cannot be held along with any other Bursary, Scholarship, or Fellowship in any Scottish University.

7. *The Mylne Bursary*, No. IX., page 282.

William Dickson Travelling Fund. See page 178.

Earl of Moray Bequest for the Promotion of Original Research. See page 178.

PRIZES.

1. *The Gunning Victoria Jubilee Prizes*, No. III., page 286.
The examination in both series will take place shortly after the close of Winter Session 1898-99.

2. The *Lord Rector's Prize*, of twenty-five guineas, for the best Essay on "Colonization; its purposes and results in Ancient and Modern Times." The Prize is open to Students of the University, and to Graduates of not more than two years' standing. Essays to be lodged with the Secretary of Senatus before 1st November, each bearing a motto, and containing the name, address, and University standing of the Candidate.

3. *The Trustees of Gray's Prize Essay Fund* offer three Prizes of £20, £10, and £5 for the first, second, and third best Essays on "A popular exposition of the teaching of Herbert Spencer." No further information will be given. Rev. A. J. Paterson, Duns, Secretary to the Trustees.

The attention of all Bursars in the Faculty of Divinity is particularly called to the following Regulation :—

"Each Bursar must present a Certificate, signed by the Dean, attesting his regular attendance on the proper Classes in the Faculty of Divinity on each occasion on which he applies to the Factor for a payment. Payments are made by the Factor for the University, Mr Henry Cook, W.S., 61 North Castle Street, Edinburgh, on and after 14th November for the Martinmas payments, and on and after 18th May for the Whitsunday payments,—between 10 and 3 o'clock.

N.B.—*Bursars, Scholars, and Fellows who desire to resign should at once announce this to the Factor. They must apply to the Factor for the instalments due to them within three months after they have become payable, otherwise they will be regarded as having resigned.*

M. C. TAYLOR, D.D.,
Dean of the Faculty of Divinity.

Faculty of Law.

Dean—Professor Sir LUDOVIC J. GRANT, Bart., B.A.

PROGRAMME OF CLASSES.

WINTER SESSION, 1898-99.

The Classes in the Faculty of Law will open as follows, and will close on Saturday, 18th March 1899.

Classes.	Days of Opening, and Hours of Lectures.	Professors and Lecturers.	Class Fees.[1]
Public Law[2] (*i.e.*, a half-course in Jurisprudence and a half-course in Public International Law)	18 Oct., 2 o'cl.	Prof. Sir Ludovic J. Grant, Bart.	£4 4[3]
Civil Law[2]	18 Oct., 4 ,,	Prof. Mackintosh	5 5[4]
Scots Law	18 Oct., 9 ,,	Prof. Rankine	5 5[4]
Constitutional Law and History[2]	18 Oct., 5 ,,	Prof. Kirkpatrick.	4 4[3]
Conveyancing	18 Oct., 9 ,,	Prof. Wood	4 4
Political Economy & Mercantile Law[2]	18 Oct., 5 ,,	Prof. Nicholson	3 3[3]
Procedure and Evidence[5]	18 Oct., 5.30 ,,	J. J. Cook, LL.B.	2 2

SUMMER SESSION, 1899.

The Classes in the Faculty of Law will open as follows, and will close on Thursday, 20th July.

Classes.	Days of Opening, and Hours of Lectures.	Professors and Lecturers.	Class Fees.[1]
Civil Law	12 May, 9 o'clock	Prof. Mackintosh.	£5 5[4]
Scots Law	12 May, 9 ,,	Prof. Rankine	5 5[4]
Forensic Medicine	2 May, 9 ,,	Prof. Sir Henry D. Littlejohn.	4 4
International Private Law[5]	12 May, 5 ,,	G. W. Burnet, M.A., B.L.	2 2

[1] Matriculation Fees: Year, £1, 1s.; Summer, 10s. 6d. Second attendances: On £5, 5s. or £4, 4s. Courses, £3, 3s.; on £3. 3s. Courses, £2, 2s. On Half-Courses: First half, no reduction; second half, £1, 1s; on Procedure and Evidence and International Private Law, second attendances, £1, 11s. 6d.; third or subsequent attendances on any Class, £1, 1s.

[2] Qualifying also for the degree of M.A.

[3] For a Half-Course, £2, 2s.

[4] This Fee is paid in Winter, and includes the Winter and Summer Sessions. Fee for Winter Session only, £4, 4s.; for Summer Session only, £2, 2s.

[5] Five shillings University entrance fee for non-matriculated Students.

Courses of Lectures.

1898-99.

I. CIVIL LAW.

PROFESSOR MACKINTOSH.

The full Course extends over a Winter and a Summer Session, covered by one fee of £5, 5s.

The Winter Course is the same as for Graduation in Arts; see Courses in Arts. The Summer Session is devoted to the doctrines of (1) Wills and Succession, (2) Obligations and Contract. The Contract of Sale will be dealt with in detail.

The Lectures are equally adapted for students qualifying for the legal profession in Scotland or England, or for service in India or the Colonies.

Text-Books.—The Institutes of Gaius and Justinian, and the Professor's "Roman Law of Sale."

The "Muirhead Prize" and the "Forensic Prize" are offered annually for competition.

II. SCOTS LAW.

PROFESSOR RANKINE, LL.D.

Students are recommended to make themselves familiar either with Erskine's "Principles" or his "Institutes" (edition by J. Badenach Nicolson, Esq., 1871). The nineteenth edition of the former work will be the text-book of the Class.

1. Sketch of the Literature of the Law of Scotland—the sources of the Law—the interpretation of Statutes.

2. Personal Relations—marriage and the modes of proving it—patrimonial effects of Marriage—rights of husband and wife—dissolution of Marriage—divorce—tutors and curators—minors—insane—parent and child—succession—heritable and moveable—wills—trusts.

3. Wrongs—personal injury—defamation—ownership of heritable property—rights and liabilities incident thereto—ownership of moveables—copyright—patents.

4. Obligations and Contracts—general requisites, constitu-

tion, and construction — partnership — joint-stock companies —factory and agency—sale—letting to hire—leases—carriers —shipping—insurance—bills of exchange—extinction of obligations—diligence—bankruptcy.

5. Parochial Law—burgh and county law—rates and taxes.
6. Criminal Law.

Summer Session.

The Lectures on Criminal Law, and part of the lectures on the above subjects, are delivered during the Summer Session.

III. CONVEYANCING.

PROFESSOR WOOD.

The Course embraces the following subjects :—

BRANCH FIRST—*Deeds in General.*

1. Requisites as to external form, and the solemnities of execution and authentication. 2. Deeds privileged as regards these solemnities. 3. Delivery and acceptance.

BRANCH SECOND—*Deeds relating to Feudal Rights.*

1. The feudal system and its bearing on the existing state of heritable rights in Scotland. 2. The writs constituting a feudal estate. 3. Writs used in the voluntary transmission of lands. 4. Services and Destinations. 5. Settlements and Marriage Contracts, as relating to heritage. 6. Entails.

BRANCH THIRD—*Miscellaneous Rights relating to Heritable Estate.*

1. Servitudes. 2. Leases. 3. Adjudications and Inhibitions. 4. Sequestrations. 5. Trust Deeds for Creditors. 6. Rights in Security.

BRANCH FOURTH—*Miscellaneous Writs, relating mainly to Moveable Rights.*

1. Submissions. 2. Securities over moveables. 3. Cautioner's Writs. 4. Life Insurance Policies Writs. 5. Discharges. 6. Partnership and Company Deeds. 7. Factories. 8. Wills and Marriage Contracts. 9. The Death Duties.

IV. PUBLIC LAW.

PROFESSOR SIR LUDOVIC GRANT, BART.

Two Courses will be delivered during the Session 1898-9: (1) Forty Lectures on General Jurisprudence (Philosophy of Law); and (2) Forty Lectures on Public International Law.

1. The Course on Jurisprudence will begin on Tuesday, 18th October 1898, at two o'clock.

Books of Reference.—Green, Principles of Political Obligation. Ritchie, Natural Rights. Ahrens, Cours du Droit Naturel. Bluntschli, The Theory of the State. Lorimer, Institutes of Law. The Student's Austin. Holland, Jurisprudence. Markby, Elements of Law. Sir Henry Maine's Works. Pollock, History of Political Science, and First Book of Jurisprudence. Clark's Practical Jurisprudence; Clarke's Science of Law and Law-making.

2. The Course on Public International Law will begin on 4th January 1899.

(*a*) An Historical Retrospect. (*b*) Some Account of the Science and Literature of Public International Law.

Books of Reference.—Ward's Enquiry into the Foundation and History of the Law of Nations. Wheaton's History of the Laws of Nations; Introduction. Nys's Les Origines du Droit International. Westlake's International Law. Phillimore's International Law, Vol. I. Bryce, Holy Roman Empire. Pardessus, Us et Coutumes de la Mer.

(*c*) An examination of the sources and a critical exposition of the leading doctrines of Public International Law.

Books of Reference.—Hall, International Law. Wheaton, International Law. Lawrence, Principles of International Law. Woolsey, Introduction to the Study of International Law. Hertslet, Map of Europe by Treaty. Letters by Historicus. Pitt Cobbett, Select Cases.

V. CONSTITUTIONAL LAW AND HISTORY.

PROFESSOR KIRKPATRICK, LL.D.

A full Winter Course, qualifying for Graduation in Law and in Arts, Tuesdays, Wednesdays, Thursdays, and Fridays, at 5.

Eight examinations and two essays during the Session. Honours for examinations and essays combined.

Subjects:—(1st Half) Constitutional History and Law of England; (2nd Half) Constitutions of America, France, Germany, Switzerland, &c.

Text-Books.—(1) For elementary purposes: Taswell Langmead's Constitutional History, and S. R. Gardiner's Student's History of England. For further study, Stubbs's Select Charters and English Constitutional History; Hallam's Middle Ages, Chap. viii.; Hallam's Constitutional History of England; Sir T. Erskine May's Constitutional History; English Constitution by W. Bagehot; Guizot's Lectures on Representative Government; R. Gneist's Self-Government in England, 3d edition, Berlin, 1871; Gneist's Geschichte und heutige Gestalt der Aemter, etc., in England, 2d edition, Berlin, 1866; Gneist's English Constitution, translated by P. A. Ashworth, London, 1886; and Blackstone's Commentaries, Book IV., of Public Rights.

(2) Elementary: Thwaites' The Colonies, and Hart's Formation of the Union (Epochs of American History), Johnston's History of the United States, Macy's Our Government. For further study, Bryce's American Commonwealth, Bancroft's History of the Constitution of the U.S.A., Winsor's History of the U.S.A., Adams and Cunningham's Swiss Confederation, Dareste's or Demombynes' Constitutions, Boutmy's Studies in Constitutional Law, Borgeaud's Adoption and Amendment of Constitutions, &c.

The History Reading-Room (adjoining the Lecture Room) is open to all members of the Class on Mondays and Fridays, from 11 to 1, and on Wednesdays, 12 to 2.

Twenty Lectures on "The English Kingship," by Mr D. P. Heatley, the University Assistant in History, on Wednesdays at 11 (free to all members of the Class).

VI. FORENSIC MEDICINE.

PROFESSOR SIR HENRY D. LITTLEJOHN, M.D., LL.D.

For Synopsis of this Course, *see* under Faculty of Medicine.

VII. COMMERCIAL AND POLITICAL ECONOMY AND MERCANTILE LAW.

For Synopsis of this Course, *see* under Faculty of Arts.

VIII. INTERNATIONAL PRIVATE LAW.

Lecturer—G. WARDLAW BURNET, M.A., B.L.

A Course of Forty Lectures on this subject will be given during the Summer Session on Tuesday, Wednesday, Thursday, and Friday in each week, at 5 P.M. Under Ordinances 39 and 40, attendance on these Lectures qualifies as a half-course for Graduation in Law. The subject is also included among those in which Intrants to the Faculty of Advocates may be examined, and the Lectures are therefore adapted for students qualifying for the Scottish Bar.

The Lectures will deal with (*a*) The nature and scope of International Private Law; (*b*) Its History and Literature; (*c*) Its general principles and their application in regard to—i. *Forum*, or Competency, including Jurisdiction, the Recognition of Foreign Judgments, and Procedure generally; and ii. *Lex*, or Choice of Law, in questions of (1) the Personal Law, including *status*, and the family relations; (2) the Law of Property, moveable and immoveable; (3) the Law of Obligations, including contract and delict; (4) Succession; and (5) Bankruptcy.

Examinations will be held on the subjects of the Lectures.

Students are recommended to attend the Class of Scots Law before attending this Course.

Books of Reference.—Rattigan's Private International Law; Guthrie's Savigny; Westlake's Private International Law; Gillespie's Bar; Foote on Private International Jurisprudence; and Dicey's Digest of the Law of England with reference to the Conflict of Laws.

PROCEDURE AND EVIDENCE.

Lecturer—J. J. COOK, LL.B.

This Course of Forty Lectures will describe the various Courts of Scotland, with the nature of their jurisdiction, the actions competent in each, and the details of the procedure,

followed in them. It will also include the principles of the Law of Evidence. The Lectures are delivered on Tuesday and Thursday of each week during the Winter Session.

Text-Books.—Mackay's "Manual" and "Practice of the Court of Session"; Coldstream's "Procedure in the Court of Session"; Dove Wilson's "Sheriff-Court Practice in Civil Causes"; Macdonald's "Criminal Law"; Macdonald's "Criminal Procedure (Scotland) Act, 1887"; Dickson on "Evidence"; Kirkpatrick on "Evidence."

Candidates for Graduation who pass in Procedure and Evidence as an extra subject may have this fact recorded on their Diplomas.

Regulations for Graduation in Law.

For Regulations for those who began the Study of Law, with a view to Graduation, before 1st October 1895, *see* CALENDAR *for* 1896-97 *or previous* CALENDARS.

Two Degrees in Law are conferred on Examination, viz., Bachelor of Law (B.L.) and Bachelor of Laws (LL.B.). Either Degree admits to the profession of Law Agent, provided the Candidate has included Scots Law and Conveyancing among his Graduation subjects, and has passed an Examination in the Practice of the Courts under the Law Agents Act.

The Degree of LL.B. (if the Candidate has been examined in Civil Law, Philosophy of Law, International Law—Public or Private, Constitutional Law and History, Medical Jurisprudence, Scots Law—Civil and Criminal, including Procedure, and Conveyancing admits to the profession of Advocate.

Two Law Graduation Examinations are held annually, the first beginning on the last Monday in October, and the second on the third Monday in March.

I. REGULATIONS FOR BACHELOR OF LAWS (LL.B.).

I. No one is admitted to examination as a Candidate for the Degree of Bachelor of Laws (LL.B.) unless he be a Graduate in Arts of one of the Universities of the United Kingdom; or of any Foreign or Colonial University specially recognised for the purpose by the University Court.[1]

[1] The following Degrees have been recognised in terms of this Section: B.A. of New Zealand University; B.A. of Cape of Good Hope University; B.A. of Dalhousie University, Halifax, Nova Scotia; Queen's College, Kingston, Canada; B.A. of the Universities of Calcutta and Madras.

II. The course of study in Law for the Degree of Bachelor of Laws includes the following subjects :— [1]

(1) Jurisprudence, General or Comparative, during a course of not less than forty lectures.
(2) The Law of Nations, or Public International Law, during a course of not less than forty lectures.
(3) Civil Law, during a course of not less than eighty lectures.
(4) Law of Scotland, or Law of England, during a course of not less than eighty lectures.
(5) Constitutional Law and History, during a course of not less than eighty lectures.
(6) Conveyancing, during a course of not less than eighty lectures ; or Political Economy, or Mercantile Law, during a course of not less than eighty lectures.
(7) Any two of the following subjects, namely :—International Private Law, Political Economy, Administrative Law, and Forensic Medicine ; in each case during a course of not less than forty lectures.

III. (1) The course of study necessary for the Degree of Bachelor of Laws extends over three academical years, one of which at least must be spent in the University in which the Candidate intends to graduate, the other two may be spent in any other University or School of Law, specially recognised by the University Court. [2]

(2) No Candidate for a Degree is deemed to have attended a class as part of the course of study necessary for that degree who does not present a certificate bearing not only that he has given regular attendance, but also that he has duly performed the work of the class.

IV. Candidates must undergo examination in the subjects prescribed in Section II. hereof ; and they must pass at one examination in at least two of these subjects. Before presenting themselves in any subject the Candidates must have attended the requisite course of instruction in such subject. Candidates who have passed an examination for another degree in any of the said prescribed subjects in the same University may be exempted from examination in such subject or subjects, provided that the examiners are satisfied that the previous examination in such subject or subjects has been passed on a sufficiently high standard.

V. Every Candidate for the Degree of Bachelor of Laws is examined both orally and in writing on each of the subjects in the course of study above prescribed, in which he presents himself for examination.

VI. (1) Distinction may be awarded to Candidates who have displayed exceptional merit in their examinations.

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[1] For names of authorised extra-academical lecturers, *see* under Faculty of Medicine.

[2] Recognised in terms of this section : the Universities of Oxford, Cambridge, and Dublin, the Inner and Middle Temples, Lincoln's Inn, and Gray's Inn, and the Madras Law School.

(2) For the Degree of Bachelor of Laws a diploma is given, setting forth the subjects in which the Candidate has passed, and the distinction (if any) he has attained.

Candidates for Examination or Graduation must matriculate for the year.

II. BACHELOR OF LAW (B.L.).

I. No one is admitted to examination as a Candidate for the Degree of Bachelor of Law (B.L.) unless he be a Graduate in Arts of one of the Universities of the United Kingdom, or of any Foreign or Colonial University specially recognised for the purpose by the University Court; or until he has passed—*A*. The Preliminary Examination in the Faculty of Arts, or its equivalent, and *B*. An examination in one of the Scottish Universities, to be conducted by the Examiners in Arts, in the following subjects, on the Standard of Examination for the Ordinary Degree of Master of Arts:—

(1) Logic and Psychology; or, in the option of the Candidate, Moral Philosophy. (2) Latin. (3) One additional Arts subject, not being one of those which belong also to the Faculty of Law.

And he must have studied at least one of these subjects in a full course in a Scottish University, or an equivalent course in another University approved by the University Court.

II. The course of study in Law necessary for the Degree of Bachelor of Law must include the following subjects:—

(1) Civil Law, during a course of not less than eighty lectures; or a half-course in Civil Law where in any University a full course is not available; provided that in the latter case, Candidates who are not already graduates in Arts are required to take in addition a course in such subject in Arts as may be sanctioned by the Senatus Academicus, or a half-course in one or other of the following branches of Law:—(*a*) Jurisprudence, General or Comparative. (*b*) The Law of Nations, or Public International Law. (*c*) Constitutional Law and History. (*d*) International Private Law. (*e*) Mercantile Law. (*f*) Administrative Law.

(2) Law of Scotland, during a course of not less than eighty lectures.

(3) Conveyancing, during a course of not less than eighty lectures.

(4) Forensic Medicine, during a course of not less than forty meetings of the class; or, in the option of the Candidate, a half-course in one of the branches of Law specified in sub-section 1 of this section, if not already taken.

III. (1) The course of study in Law necessary for the Degree of Bachelor of Law extends over two Academical years.

(2) No Candidate for a Degree is deemed to have attended a class as part of the course of study necessary for that degree who does not present a certificate bearing not only that he has given regular attendance, but also that he has duly performed the work of the class.

(3) The Candidate may prosecute his studies during the prescribed two years in one Scottish University, or in different Scottish Univer-

sities, or in a Scottish University and a University or School of Law specially recognised by the University Court; but one at least of these years must be spent, and all the examinations in the subjects mentioned in the preceding section must be passed, at the University in which he intends to graduate.

IV. The Candidate for the Degree of Bachelor of Law must undergo examination and pass in the four or more subjects selected by him; but he may present himself for examination in one subject or group of subjects at a time, provided that he has completed the course of study for such subject or group of subjects, and provided also that in that case a higher standard of proficiency shall be exacted.

V. Every Candidate for the Degree of Bachelor of Law is examined, both orally and in writing, on each of the subjects in the course of study above prescribed, in which he presents himself for examination.

VI. (1) Distinction may be awarded to Candidates who have displayed exceptional merit in their examinations.

(2) For the Degree of Bachelor of Law a diploma is given, setting forth the subjects in which the Candidate has passed, and the distinction (if any) he has attained.

Candidates for Examination or Graduation must matriculate for the year.

EXAMINATIONS.

I. Preliminary Examinations for Bachelor of Law (B.L.).

For outlines of the subjects of the Preliminary Examination (a) *on the Standard of the Preliminary Examination for the Degree of Master of Arts* (*M.A.*), *and* (b) *on the Standard of the Ordinary Degree of M.A., see Regulations for Degrees in Arts, where the dates of entering for the Examinations and payment of the Fees, and the dates of the Examinations, are given.*

II. Law Examinations (for Degrees of LL.B. and B.L.).

Subjects for October 1898 (*and till further notice*).[1]

In General Jurisprudence the subjects will be *The Philosophy of Law* and *Civil Society*, and *Analytical* and *Historical Jurisprudence*. For books recommended see Synopsis of the Professor's Lectures.

In Public International Law the examination will be in the doctrines of the Law and the historical and scientific questions connected therewith. For books see Synopsis of the Professor's Lectures.

In Civil Law the examination will be on the History of the Law, and on its Principles as explained in the Institutes of Gaius and Justinian. Candidates for LL.B. will also be examined on Books xviii., tit. i. (*De contrahenda emptione*) and xix., tit. i. (*de actionibus empti venditi*) of the Digest. The paper will contain passages for translation into English from the Latin text of the above-mentioned books.

[1] Examination papers will be set in the other subjects prescribed by the Regulations if required.

In CONSTITUTIONAL LAW AND HISTORY the subjects will be—(*a*) Constitutional History and Law of England, down to the first Reform Act (Text-books, the works of Stubbs, Hallam, and May); (*b*) the Constitutions of the U.S. of America, of France, Germany, and Switzerland (Text-books, Bancroft, Bryce, Adams and Cunningham, Dareste's or Demombynes' Constitutions). See also Synopsis of the Lectures.

In the LAW OF SCOTLAND the subject will be the Municipal Law, Civil and Criminal. The works of Mr Erskine, Mr G. J. Bell, and Lord Kingsburgh, in the latest editions, are recommended to Candidates.

In CONVEYANCING the subject of examination will be—Heritable Rights (excluding Entails) and Moveable Rights.

In FORENSIC MEDICINE the subjects will be—(1) Identity of the Dead; (2) Pregnancy; (3) Asphyxia; (4) Poisoning with Mercury; (5) Criminal responsibility of the Insane.

In POLITICAL ECONOMY the examination will be on the subjects treated of in Mr J. S. Mill's "Principles of Political Economy." Candidates must also show some knowledge of the works of the recent writers mentioned in the Synopsis of the Professor's Lectures.

In INTERNATIONAL PRIVATE LAW Candidates will be examined on the subjects dealt with in the Lectures (see Synopsis of the Lectures), and in Guthrie's Savigny.

PROCEDURE AND EVIDENCE.—Candidates for a Law Degree may be examined in this subject also, and have the fact recorded on their diplomas. Candidates will be examined on the subjects dealt with in the Lectures. Text-books, see Synopsis of Lectures.

FEES.

I. PRELIMINARY EXAMINATION FOR B.L.

1. For each examination on Standard of M.A. Preliminary Examination, ... £0 10 6

2. For each subject on M.A. Standard the same fee as is payable for the corresponding subject for M.A., viz., 15s., or £1, 1s., as the case may be.

II. LAW EXAMINATIONS FOR LL.B. AND B.L.

The fee payable for LL.B. is £6 6 0

or

If the Examination be taken at two or more periods—

For the First, ... £3 3 0

For the Second, ... 3 3 0

The fee payable for B.L. is £5 5 0

or

If the Examination be taken at two or more periods—

For the First, ... £3 3 0

For the Second, ... 2 2 0

Candidates who fail to pass in any of the LL.B. or B.L. subjects pay a fee of 10s. 6d. for reappearance for Examination in each subject in which they have failed.

Fee for registration as a member of the General Council (if not already registered) £1.

DATES OF EXAMINATIONS, AND FOR GIVING IN NAMES AND PAYMENT OF FEES.[1]

Candidates may pay the fees personally or transmit them to T. GILBERT, University, Edinburgh, by *Post Office* or *Postal Orders*, or by *Bank Drafts*, crossed Union Bank of Scotland (Hunter Square Branch), Edinburgh, but not by cheques on private accounts.

II. LAW EXAMINATIONS FOR LL.B. AND B.L.[1]

1898.

October 24, Mon. Names to be given in, certificates shown, and fees paid, *on or before* this date.
,, 31, ,, Scots Law—9-1; Constitutional Law and History, 2-4.
Nov. 1, Tu. Civil Law—9-1; Constitutional Law and History, 2-4.
,, 2, Wed. Conveyancing—9-1; Medical Jurisprudence, 2-4.
,, 3, Th. General Jurisprudence—9-11; Public International Law, 11.30-1.30; Political Economy, 2-4.
,, 4, Fri. Political Economy, 9-11; International Private Law, 12-2; Procedure and Evidence,[2] 2.30-4.30.
,, 7, Mon. Oral Examinations begin.

1899.

March 6, Mon. Names to be given in, certificates shown, and fees paid, *on or before* this date.
,, 20, ,, Scots Law—9-1; Constitutional Law and History, 2-4.
,, 21, Tu. Civil Law—9-1; Constitutional Law and History, 2-4.
,, 22, Wed. Conveyancing, 9-1; Medical Jurisprudence, 2-4.
,, 23, Th. General Jurisprudence, 9-11; Public International Law, 11.30-1.30; Political Economy, 2-4.
,, 24, Fri. Political Economy, 9-11; International Private Law, 12-2; Procedure and Evidence,[2] 2.30-4.30.
,, 27, Mon. Oral Examinations begin.

GRADUATION CEREMONIALS.[1]

April 14, Fri.
July 29, Sat. } Names to be entered at least ten days previously.

[1] If names are not entered, and fees are not paid, or a Pass to the Examination obtained where the fee has been previously paid, on or before the stated dates, a late-entry fee of ten shillings must be paid before the Candidate can be admitted to examination.

[2] This is not a subject for Graduation in Law but those who pass in it may have the fact recorded on their Diplomas.

Graduates in Law.[1]

DEGREE OF LL.B., 1889-1898.

1889.

David Anderson, M.A.
Claud Patrick Boswell, M.A.
Archibald Brown Campbell, M.A.
*Andrew Henderson Briggs Constable, M.A.
*Alistair Davidson, M.A.
*Matthew Robin Greenlees, M.A.
James Arthur Hope, M.A.
*William Hunter, M.A.
*Robert Bird Kerr, M.A.
Francis Kinloch, B.A.
*George Fleming Mathers, M.A.
*John Hepburn Millar, M.A.
*Charles David Murray, M.A.
*Coventry Dick Peddie, M.A.
John Ritchie, M.A.
*Hamish Hay Stuart, M.A.
Arthur Moodie Thomas, M.A.
*Alexander Thomson, M.A.

1890.

*Duncan Mearns Abel, M.A.
*James Roberton Christie, M.A., LL.B. (Glasg.).
*William Scott Currie, M.A.
Edmund John Gunn, M.A.
Neil James Kennedy, B.A.
William James Kippen, B.A.
Lawrence M'Laren, M.A.
John Liddell Officer, M.A.
Alexander David Russell, M.A.
*William Thomson, M.A.

1891.

Andrew Brown, M.A.
Charles Walker Bruce, M.A.
Robt. Jeffrey Cunningham, M.A.
James Wright Forbes, M.A.
Henry William Gibson, M.A.
Alexander Gray, M.A.
William Gray, M.A.
*James Mercer Irvine, M.A., B.Sc.
*Erskine Dawson Jamieson, M.A.
*Thomas Johnston, M.A.
Robt. Carmichael Malcolm, M.A.
*Thomas Brash Morison, M.A.
C. Morrison, M.A.
*Andrew Fleming Smith, M.A.
James Robert Earl Monteith Smith, M.A.
Michael Smith, M.A.
*Robert Macaulay Smith, M.A.
Frederick Mills Spankie, M.A.
Alex. Arthur Granger-Stewart, M.A.
*Robert Moir Williamson, M.A.
John Buchanan Young, M.A.

1892.

James Barty, M.A.
William Brown, M.A.
*John Sproat Taylor Cameron, M.A.
*William Chree, M.A.
John Marr Davidson, M.A.
*James Grant, M.A.
Augustus Wallace M'Gregor, M.A.
Thomas John Millar, M.A.
Alexander John Raeburn, M.A

1893.

George Haskell Boyd, M.A.
Thomas Sanderson Hepburn Burns, M.A.
*William Findlay, M.A.
Louis Carr Hallard, M.A.
*William Ingram, M.A., D.Sc.

[1] The names of all the Graduates in Law from the institution of the Degrees to 1888 will be found in the List of Graduates of the University, published in 1889, pp. 125-127. See also previous Calendars.

* Passed with distinction.

*Robert Munro, M.A.
William Dormond Munro, M.A.
*Alexander Blairford Smith, M.A.
Thomas Callander Wade, M.A.
John Peregrine Robertson White, M.A.

1894.

*Alexander Brown, M.A.
Robert Smith Craig, M.A.
William Graham, M.A.
Ian MacIntyre, M.A.
*James M'Robie, M.A.
David Maxwell, M.A.
George Morton, M.A
John Purves Smith, M.A.
Frederick James Thomson, M.A.
*John Aitken Welsh, M.A.

1895.

*Francis Molison Anderson, M.A.
*James Ballantyne, M.A.
John Erskine Dods, M.A.
Alexander James Louttit Laing, M.A.
*Charles Lippe, M.A.
Alexander M'Callum, M.A.
William Dunbar MacDougall, M.A.
William George Manson, M.A.
*John Arthur Thomas Robertson, M.A.
Walter James Robertson, M.A.
James Rose, M.A.
*James Miller Thomson, M.A.
David Milne Watson, M.A.

1896.

*James Adamson, M.A.
Arthur James Alison, M.A.
William Blair, M.A.
*John Aitken Christie, M.A.
James Dunlop, M.A.
*Hugh Archibald Hamilton, M.A.
Robert Macfie, M.A.
Robert Dundonald Melville, M.A.
James Duncan Millar, M.A.
William Mitchell, M.A.

1897.

*Alexander Boyd Barty, M.A.
*John Cowan, M.A.
*Thomas Crow Darling, M.A.
Maxwell Fleming, M.A.
Robert Candlish Henderson, M.A.
*David Nasmyth Clarke Hogg, M.A.
Robert MacgregorMitchell, M.A.
John Alexander Robson, M.A.
George Crurie Steuart, M.A.

13th April 1898.

Bijay Kisor Acharyya, B.A.
*William Burt, M.A.
*Robert Gray, M.A.
Thomas Hart, M.A.
*John Alexander Inglis, B.A.
Henry Lillie, M.A.
Malcolm Nicolson MacInnes, M.A.
John Mackintosh, M.A.
Dugald Maclean, M.A.
John James Maclean, M.A.
William Ogilvy, M.A.
*Subharama Swaminadhan, M.A.

DEGREE OF B.L.

1889.

*Robert Liddell Cockburn.
John Glover.
William Stowell Haldane.
John Lumsden Macpherson, M.A.
John James Waugh.

1890.

Duncan Cameron.
Duncan Archibald Maccoll.
Robert Watson.

1891.

John Scrymgeour Hepburn.
John Nisbet.

* Passed with Distinction.

William Alexander Stewart.
Thomas Trotter.

1893.

John Romanes.
Thomas Edward Taylor, M.A.

1894.

*Alexander Douglas Donald.
Buckham William Liddell.

1895.

Geo. Ernest Rawson Coldstream.
William Alexander Cullen.

1896.

James Dan Easson.
*Alexander Speeden Riach.
David Ritchie.
*William Gowan Dobie Simpson.

1897.

Alexander Ernest Philip Gardner.

13th April 1898.

James Kidd.
John William Dods Kirkland.
Alexander Malcolm MacEwen.
Andrew Macgregor Meldrum, M.A.
William David Mitchell.

DEGREE OF DOCTOR OF LAWS (LL.D.).[1]

The Degree of Doctor of Laws is conferred *honoris causâ tantum*. It was first granted in 1695. Previously to 1751 it had been conferred on seven persons only. Since then more than 400 names, including some of the most distinguished in Europe, have been added to the list. The degree is not conferred in absence except in very special cases.

The following is a list of those upon whom the Degree of Doctor of Laws has been conferred 1889-1897 : —[2]

1889.

[1] Sir Syed Ahmed Khan, Bahadûr, K.C.S.I.
J. E. T. Aitchison, C.I.E., M.D., F.R.S., &c.
[1 2] James D. Dana.
[1] Francis Day, C.I.E., &c.
[1] Hon. David Dudley Field.
[1 2] C. Gegenbaur.
[1 2] E. Haeckel.
[1] Rudolf von Jhering, Dr. Jur.
[1 2] E. E. Kummer.
William Mackintosh, M.A., Q.C.
[1 2] Konrad Maurer.
Maurice Paterson, B.A.
Richard Quain, M.D., F.R.S., &c.
[1] Rudolf von Roth, Ph.D.
[1 2] Barthélemy St. Hilaire.
[1 2] Jules Simon.
Whitley Stokes, C.S.I., C.I.E., D.C.L., &c.
[1 2] Geheimrath Heinrich von Sybel.
James Ward, M.A., D.Sc.
[1] William Dwight Whitney.
[1 2] B. Windscheid.

1890.

Sir Benjamin Baker, C.E.
Pierre Paul Leroy-Beaulieu.
Right Hon. Henry Chaplin, M.P.

* Passed with Distinction.

[1] Those to whom the Degree has been offered, if unable to be present at the Graduation Ceremonial immediately ensuing, may present themselves at any subsequent Ceremonial, on giving at least a week's notice.

[2] The names of those who received the Degree prior to 1859 will be found in the "Catalogue of the Graduates in the Faculties of Arts, Divinity, and Law of the University of Edinburgh since its foundation," published in 1858, and of those who received the Degree from 1859 to 1888, both years included, in the List of Graduates published in 1889, and in previous Calendars.

[1] Conferred *in absentia*.

[2] Tercentenary Graduates unable to be present in 1884.

Sir Dyce Duckworth, M.D.
Sir John Fowler, Bart., C.E.
[1] James Anthony Froude, M.A., LL.D.
Joseph H. Gilbert, M.A., Ph.D., LL.D., F.R.S.
William W. Goodwin, D.C.L.
James Hardy.
Sir John Kirk, M.D., G.C.M.G.
General Robert Maclagan, R.E.
John Marshall, M.A.
Right Hon. J. P. B. Robertson, M.P.
Frederic Seebohm, F.S.A.
[1] Emeritus-Professor C. Piazzi Smyth, F.R.A.S., &c.
H. M. Stanley.
Spencer Walpole.

1891.

Alexander Asher, Q.C., M.P., &c.
John Beddoe, M.D., F.R.S, &c., &c.
Major C. R. Conder, R.E., D.C.L.
Felix Dahn.
Alexander Campbell Fraser, D.C.L., LL.D.
Cunningham Geikie, D.D.
George Joachim Goschen, M.P.
Sir George Murray Humphry, M.D., F.R.S.
Colonel Sir Colin Campbell Scott Moncrieff, K.C.M.G., C.S.I.
Professor Simon Newcomb.
Sir Herbert Stanley Oakeley, M.A., Mus. Doc., LL.D., D.C.L.
John Johnstone Rogerson, B.A., LL.B.

1892.

Surgeon-General James Macnabb Cuningham, M.D., &c.
[1] Rev. C. V. A. Van Dyck, M.D., D.D.
Robert M. Ferguson, Ph.D., F.R.S.E.
Rt. Hon. Sir Edward Fry.
[1] Theodore Nöeldeke.
Dr Jakob Schipper.
Hon. Sir Charles Tupper, Bart., G.C.M.G., C.B., M.D.
[1] Rev. Thomas Walker, M.A.
Robert Boog Watson, B.A., F.R.S.E.

1893.

Geheimrath Professor Dr Arthur Auwers.
Sir I. Lowthian Bell, Bart., F.R.S.
John Sutherland Black, M.A.
Sir George Buchanan, M.D., F.R.S.
Rt. Hon. Sir Stuart Knill, Bart.
Henry Duncan Littlejohn, M.D., F.R.C.S. Edin.
Alfred Marshall, M.A.
John Rhys, M.A.
His Excellency General the Right Hon. Lord Roberts, of Candahar, G.C.B., G.C.I.E., V.C., R.A. (B.).
Lieut.-Colonel Justin C. Ross, C.M.G.
Rev. Walter C. Smith, D.D.
Alexander Moody Stuart.
Ramsay Heatley Traquair, M.D., F.R.S.

1894.

John Taylor Brown.
W. H. Gaskell, M.D., F.R.S.
Henry Goudy, M.A., LL.B.
Professor Franz Kielhorn, Ph.D.
Professor Diodato Lioy.
Charles B. Logan, W.S.
David Patrick, M.A., B.D.

[1] Conferred *in absentia*.

Rt. Hon. Sir Charles John Pearson, M.A., Q.C., M.P.
James Alexander Russell, M.A., B.Sc., M.B., C.M.
George Wilson, M.A., M.D.

1895.

Rev. William Cunningham, M.A., D.Sc., D.D.
Hon. Lord M. T. Stormonth Darling, M.A.
Thos. Edmonson Charles, M.D.
Joseph Remi-Leopold Delbœuf, Ph.D., D.Litt., D.Sc.
S. Weir Mitchell, M.D.
Professor W. M. Flinders Petrie, M.A., D.C.L.

1896.

P. Hume Brown, M.A.
Giosuè Carducci.
Emeritus-Prof. David Masson, LL.D.
Sir J. Russell Reynolds, Bart., M.D., &c.
Douglas Argyll Robertson, M.D., F.R.C.S. (Edin.), &c.
John Alexander Stewart, M.A.
David Duncan, M.A., D.Sc.

1st August 1896.

Sir Dietrich Brandis, Ph.D., K.C.I.E., F.R.S., late Inspector-General of Forests, India.
Sir Charles A. Elliott, K.C.S.I., late Lieutenant-Governor of Bengal.
Professor Francis A. Walker, LL.D., &c., President of Massachusetts Institute of Technology, Boston.

1897.

Professor James Dewar, M.A., F.R.S.
James Gairdner.
Emeritus-Professor Sir Douglas Maclagan, M.D., &c.
John Rae, M.A.
The Right Hon. Lord Russell, G.C.M.G.
John Turnbull Smith, C.A., F.F.A.
John Wyllie, M.D.

3rd December.

William M'Ewan, M.P., Donor of the M'Ewan Hall.

13th April 1898.

Horace T. Brown, F.R.S.
John B. Bury, M.A., Hon. Litt.D., Professor of Modern History, Dublin University.
William J. Courthope, C.B., M.A., D.Litt., Professor of Poetry, University of Oxford.
Thomas G. Law, Librarian, Signet Library, Edinburgh.
John W. M'Crindle, M.A., M.R.A.S., F.R.S.G.S., late Principal, Government College, Patna.
The Hon. Sir Walter Phillimore, Bart., D.C.L.
D. G. Ritchie, M.A., Professor of Logic and Metaphysics, University of St Andrews.
J. Victor Carus, Professor of Comparative Anatomy, University of Leipzig.

Bursaries, Scholarships and Prizes, &c., in the Faculty of Law.

I.—BURSARIES.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patron.
I.	1873	The Grierson Trustees.	£80 0 0	3	1	About £26 13 4	Senatus.
II.	1873	Geo. Cairns, Solicitor.	19 0 0	1	1	About 19 0 0	Senatus.
III.	1878	Dr Andrew Thomson.	100 0 0	4	4	25 0 0	Trus. of Dr Thomson.

I. There are three Grierson Bursaries, each of the value of £26, 13s. 4d. annually. Deserving students from the parishes of Crawford or Leadhills, applying to the Clerk of Senatus on or before the 1st day of September, are entitled to preference, if they satisfy certain conditions;[1] and if the applicant is commencing his first Winter Session of the Law Curriculum he will be entitled to hold the Bursary for three years, provided "he prosecutes his studies with proper diligence."[1] The subjects of examination are Elementary Latin, English, and Arithmetic. See Outline of Subjects, pages 102 and 103, and Time-Table of Examinations, page 119.

Failing preferential candidates, the Bursaries will be tenable for one year only, and will be awarded to candidates who have attended one year in the Faculty of Arts in some University. 1. In the case of those commencing their first Winter Session in Law, the award will be to the candidate who has passed highest in Latin and Moral Philosophy at the Arts Graduation examination in October. 2. In the case of candidates commencing their second Winter Session—to the most distinguished law-student of that standing, who, if not a Graduate in Arts, has passed satisfactorily in Latin and Moral Philosophy at the Arts Examination, either in October or earlier. 3. In the case of candidates commencing the third Winter Session of the Law Curriculum—to the most distinguished law-student of that standing who has passed satisfactorily in Latin, Moral Philosophy, and Logic at the Arts Examination in October or earlier. See Regulations, CALENDAR 1877-78, p. 370. *Bursars in* 1897—First year, *A. P. Thoms.* Second year, *D. T. Stewart.* Third year, *R. Gray.*

II. The competition for the Cairns Bursary, which is tenable for one

[1] See CALENDAR 1877-78, p. 370. By "proper diligence" is understood regular attendance on Classes, and reasonable proficiency in Class Examinations.

year only, and is not subject to any preferences, is subject to the same conditions as those for the second year Grierson Bursary. This Bursary is open to Students who have completed one year in the Law Faculty. *Bursar*—1897, *J. Mitchell.*

III. For the *Thomson Bursaries* application should be made to Messrs Traquair, Dickson & Maclaren, 11 Hill Street. Candidates of the name of Thomson or Traquair, or natives of the town or county of Dumfries, or of the city of Edinburgh, are preferred. The Examination is in Latin and Moral Philosophy, and is the same as the October Examinations in those subjects for M.A. See CALENDAR 1879-80, p. 345. *Bursar*—1897, *William M'Clymont.*

Bursaries in the Faculty of Arts, the holders of which may study in the Faculty of Law (see also under Faculty of Arts) :—

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patron.
I.	1809	Dr Donald Grant, London.	£180 0 0 About	4	4	£45 0 0 About	Dr Grant's Trustees.
II.	1846	John Jamieson, Edinburgh.	26 0 0 About	1	4	26 0 0	Principal and Two Professors.
III.	1871	The Sibbald Bursaries.	150 0 0	5	3	30 0 0	Trustees of Dr J. R. Sibbald.
IV.	1883	Wm. Renton, Edinburgh.	19 19 6 About	1	1	19 19 6 About	Professors of Mathematics, Natural Philosophy, Chemistry, and Political Economy.
V.	1886	R. Allan, Feuar, Kelso.	90 0 0	3	3	30 0 0	Trustees of R. Allan.
VI.	1889	Daniel MacLaurin, London.	62 10 0	1	4	62 10 0	Town Council.

II.—SCHOLARSHIPS.

General Regulations for Vans Dunlop Scholarships.

Four Vans Dunlop Scholarships, each of about £100 per annum, tenable for three years, are more or less directly connected with the Faculty of Law :—

Candidates for a Vans Dunlop Scholarship must enter their names and addresses *at least a fortnight* before the date of examination, at the *Matriculation Office, University, Edinburgh*, and produce evidence that they are eligible. They are required to be Matriculated students of the year in which the competition takes place.

I. *Vans Dunlop Scholarship in Commercial and Political Economy and Mercantile Law*, for which both Law and Arts Students are eligible. For Regulations, see under Scholarships in Faculty of Arts.

Next vacancy in October 1898.

II. *Vans Dunlop Scholarship in the Law of Nature and Nations, Civil Law, and Constitutional Law and History.* The Regulations for competition are as follows:—

(*a.*) The Competition is open to all Candidates who, within the three years immediately preceding the date of competition, shall have graduated in Law in this University, or shall have passed the Graduation Examination in the three subjects of examination for the Scholarship: provided they have written papers of the LL.B. standard at the Graduation Examination, and have obtained an average of not less than 75 per cent. of marks in these subjects.

(*b.*) The Competition is by written Essays on branches of law to be announced at least one year before the date of competition. The precise subject of each of the essays will be set on the conclusion of the Graduation Examination in October.

(*c.*) The Examiners are the Professors of the prescribed subjects, assisted by the additional Law Examiners.

Next vacancy in October 1898.

1895. *Thomas Callender Wade, M.A., LL.B.*

III. *Vans Dunlop Scholarship in Scots Law and Conveyancing.*

(*a.*) The Competition is open to all Candidates who, within the three years immediately preceding the date of competition, shall have graduated in Law in this University, or shall have passed the Graduation Examination in Scots Law, Conveyancing, and Forensic Medicine: provided they have obtained at the Graduation Examination an average of not less than 75 per cent. of marks in these three subjects.

(*b.*) The Competition is by written Essays on (1) the Civil Law of Scotland, (2) the Criminal Law of Scotland, and (3) Conveyancing, the particular branches of which will be announced at least one year before the date of competition. The precise subject of each essay will be set on the conclusion of the GraduationExamination in October.

(*c.*) The Examiners are the Professors of the prescribed subjects, assisted by the additional Law Examiners.

Next vacancy in October 1900.

1897. *William Mitchell.*

Conditions of Tenure.

Each holder of No. II. and No. III. of these Scholarships will be required to deliver, to the satisfaction of the Faculty of Law, two courses of three lectures each on one of the subjects of examination for the Scholarship, viz., one course in the second, and the other in the third year of his tenure.

IV. *Vans Dunlop Scholarship in History.* For Regulations, see under Scholarships in Faculty of Arts. Next vacancy in October 1898.

V. The Lorimer Travelling Scholarship.[1]

The Lorimer Travelling Scholarship, of the annual value of about £40, tenable for two years, for the encouragement of the study of the "Law of Nature and Nations" in foreign Law Schools by Students and Graduates in the Faculty of Law, was founded by the Lorimer Memorial Committee and the Association for the better Endowment of the University. The Scholarship is open to Candidates who, during the two years immediately preceding that in which a scholar falls to be appointed, have completed the examinations for a Degree in Law in the University in the following subjects, namely—(1) The "Law of Nature and Nations" (including therein the Philosophy of Law); (2) The Civil Law; and (3) Either (*a*) Constitutional Law and History, or (*b*) Political Economy. The foreign Law School or Schools which the Scholar proposes to attend must be previously approved by the Faculty of Law. The Candidate who, in the opinion of the Faculty of Law, passes with most distinction in the examinations for Graduation in Law, in the subjects above set forth, during the two years immediately preceding the election, and who is willing to fulfil the conditions imposed by the Deed of Foundation, will be eligible, consideration being always given to his proficiency in the first of the above-named subjects, and to his knowledge of the modern language or languages spoken in the Law School or Schools where he proposes to study. For Deed of Foundation, see CALENDAR for 1892-93, p. 538.

This Scholarship may be offered for competition in July 1899.

VI. Gray Scholarship for Research.

For Regulations, see under Scholarships in the Faculty of Arts.

VII. The William Dickson Travelling Fund.

For further information, see under Faculty of Arts.

VIII. The Earl of Moray Bequest for the Promotion of Original Research.

For further information, see under Faculty of Arts.

IV.—PRIZES.

The *Forensic Prize*, of the value of £10, founded in 1858 by the Forensic Society with the view of encouraging the study of Roman Law, is awarded annually either in July or in October, for the best Essay upon a subject prescribed by the Professor of Civil Law, or, as the result of a Special Examination, as may be found convenient. The subject of the Essay, or the date of the Examination, as the case may be, is announced by the Professor early in the Session. It can be com-

[1] These Regulations may be altered before the next competition.

peted for only by Students of the Civil Law Class during the preceding year.

1897. Not awarded.

2. The *Muirhead Prize*, of about £15, 12s. 6d. annually, is awarded to the Student who gains the first place in the Class of Civil Law, as determined by the results of the periodical examinations during both the Winter and Summer Sessions.

1897. *D. T. Stewart.*

SCHOLARSHIPS, BURSARIES, AND PRIZES, &c., OPEN IN 1898-99.

Candidates for Scholarships must enter their names and addresses, and exhibit the necessary certificates, at the Office of the Clerk of Senatus at least fifteen days before the date of the competition.

The examination for first-year Bursaries is in Latin and Moral Philosophy. Candidates to give in their names on or before 1st October. Applicants for the second and third year Grierson Bursaries must apply on or before 15th October, and must state what distinctions they have attained in the Law Classes of the previous year.

Applications for grants from the William Dickson Travelling Fund must be lodged on or before 15th March; and applications for grants from the Moray Bequest on or before 15th March and 1st July.

Where the competition is open to Graduates, their standing will be computed from the date of the Graduation Ceremonial immediately following the completion of their Law Examinations.

I.—Scholarships, &c.

No. I. will be offered for competition after the conclusion of the Graduation Examination in October 1898. For works recommended, see under Faculty of Arts.

No. II. will be offered for competition after the conclusion of the Graduation Examination in October 1898.

The subjects of the Essays to be set will be taken from the following branches of Law:—

(1) Diplomatic Agents and Diplomacy.

(2) The Roman Law of Sale.

(3) The U.S.A. Constitution, its history and principles.

No. IV. will be offered for competition after the conclusion of the Graduation Examination in October 1898. For subjects, &c., see under Faculty of Arts.

Earl of Moray Bequest for Research. See page 178.
The William Dickson Travelling Fund. See page 178.

II.—Bursaries.

The subjects of examination for first-year Bursaries are Latin and Moral Philosophy, and are the same as the October Examinations in these subjects for M.A.

FACULTY OF LAW, EDINBURGH UNIVERSITY.

Scholarships of the Sons of Thomas Thow, of Dundee.

(*Will be awarded at the end of Winter Session* 1898-99).

These Scholarships, three in number, of the annual value of about £25 each, were founded by the Trustees of the late Miss Christiana Thow of Craigmore, West Ferry, near Dundee, according to the desire of Miss Christiana Thow and her Sister, Miss Margaret Thow, and out of respect to the memory of their Brothers.

The following are the Rules and Regulations applicable to the said Scholarships :—

1. The Scholarships shall be distributed annually, one to the most distinguished student for the Winter Session in the Class of Scots Law at the University of Edinburgh ; another to the most distinguished for the Winter Session in the Class of Conveyancing at the said University ; and the third to the most distinguished student for the Winter Session in any two of the following Classes at the said University, viz :— Public Law, Civil Law, and Constitutional Law and History.
2. Each of the Scholarships shall be tenable only for one year by the student in the subject for which it has been bestowed upon him, but the same student may competently obtain one of the Scholarships set apart for the other subjects in a succeeding session, provided he has the necessary qualification.
3. No Student can hold two of these Scholarships for the same year, although he may have satisfied the conditions in other respects. In the event of any Student being first as regards two of the Scholarships, the Faculty of Law shall determine which Scholarship shall be awarded to him, and which shall be taken by the next most distinguished student.
4. There shall be no restriction as to holding one of these Scholarships along with another Scholarship or Bursary from another source.
5. The Scholarships shall be payable at the end of each winter session, on the Certificate of the Dean of the Faculty of Law.

The foregoing Rules and Regulations are subject to such alterations and modifications as the Trustees may from time to time think fit.

1, 2, 3. *Three Grierson Bursaries*, value £26, 13s. 4d. each, restricted in the first place to natives of the parishes of Crawford and Leadhills, and tenable for three years, whom failing they will be tenable for one year. One will be open to Students beginning their first Winter Session, one to Students beginning their second Winter Session, and one to Students beginning their third Winter Session (see general rule as to application, *sup.*).

4. The *Cairns Bursary*, value £19, tenable for one year (see general rule, *sup.*).

5. The *Sibbald Bursaries*, see page 313. Apply to Messrs Mackenzie, Innes & Logan, 23 Queen Street, Edinburgh, before 15th September.

6. A *Thomson Bursary*, of £25 a year, tenable for four years. Candidates must be Matriculated Students commencing their First Winter Session, in the Faculty of Law, and must intimate their intention to compete to Messrs Traquair, Dickson & Maclaren, W.S., 11 Hill Street, the Agents for Dr Thomson's Trustees, and also to the Clerk of the Senatus on or before 1st October. Candidates of the name of Thomson or Traquair, or natives of the town or county of Dumfries or the city of Edinburgh, are preferred.

7. *Renton Bursary*, No. 39, page 188. The examination is in English and Elementary Mathematics as for First Year Open Bursaries in Arts. See dates of Examination, page 119. Names of Candidates to be entered at the Matriculation Office, on or before 16th September.

8. *Baxter of Balgavies Bursary*, restricted to pupils of the High School, Dundee. For particulars, see page 186.

III.—Prizes.

1. The *Forensic Prize.* See page 315.
2. The *Muirhead Prize.* See page 316.
3. The *Lord Rector's Prize.* See No. 1, page 182.

4, 5, 6. *The Trustees of Gray's Prize Essay Fund* offer three Prizes of £20, £10 and £5 for the first, second, and third best Essays on a "Popular exposition of the teaching of Herbert Spencer." No further information will be given. Rev. A. J. B. Paterson, Duns, Secretary to the Trustees.

The attention of all Bursars in the Faculty of Law is particularly called to the following Regulation:—

"Bursars connected with the Faculty of Law must annually attend and perform the work of at least one Class in the Faculty.

"Each Bursar must present a Certificate, signed by the Dean, attesting his regular attendance, &c., on each occasion on which he applies to the Factor for a payment."

Certificates, in terms of this regulation, will be given to Bursars by

the *Dean of the Faculty of Law* after the 14th November; also at the end of the Session in April. In applying to the Dean for the Certificate in November, Bursars must present to him their Class Cards for the Session, as evidence that they have enrolled in their classes; and at the end of the Session they must present to him certificates from the Professors to the effect that they have attended with regularity and have performed the work of the Classes. Payments are made by the Factor for the University, Mr Henry Cook, W.S., 61 North Castle Street, Edinburgh, on and after 14th November for the Martinmas payments, and on and after 18th May for the Whitsunday payments,—between 10 and 3 o'clock.

N.B.—*Bursars and Scholars who desire to resign should at once announce this to the Factor. They must apply to the Factor for the instalments due to them within three months after they have become payable, otherwise they will be regarded as having resigned.*

L. J. GRANT, Bart., B.A.,
Dean of the Faculty of Law.

Faculty of Medicine.

Dean—PROFESSOR THOMAS R. FRASER, M.D., LL.D., F.R.S.

—o—

Programme of Classes.

WINTER SESSION, 1898-99.

Students who do not intend to graduate in Medicine in this University may attend any of the Classes in the Faculty on payment of the Matriculation and Class Fees. Those who intend to graduate must pass the Preliminary Examination before attendance on any Class will qualify for Graduation.

The Classes in the Faculty will be opened on Tuesday, 18th October, and will meet daily (Saturdays excepted), unless otherwise stated.

Classes.	Days of Opening and Hours of Lectures.	Professors.	Class Fees.[1]
Surgery	18 Oct., 9 o'cl.	Prof. Chiene	£4 4
Materia Medica	18 Oct., 9 ,,	Prof. Fraser	4 4
Pract. Mat. Medica, includ. Pharmacy	19 Oct., 10 ,,	Prof. Fraser	3 3
Midwifery & Diseases of Women & Childr.	18 Oct., 9 ,,	Prof. Simpson	4 4
Medicine	18 Oct., 10 ,,	Professor Sir T. Grainger Stewart	4 4
Physiology or Institutes of Medicine	18 Oct., 10 ,,	Prof. Rutherford.	4 4
Practical Physiology	19 Oct., 3 ,,	Prof. Rutherford.	3 3
Chemistry	18 Oct., 10 ,,	Prof. Crum Brown	4 4
Chemistry—Advanced Course	3 Jan., 3 ,,	Prof. Crum Brown	2 2
Practical Chemistry	28 Nov., 11 and 2 o'cl.	Prof. Crum Brown	3 3
Advanced Botany[3]	18 Oct., 11 ,,	Prof. B. Balfour	2 2[2]
Prac. Bot. (Advanced)[3]	18 Oct., 11 ,,	Prof. B. Balfour	3 3[2]
Clinical Instruction in the Royal Infirmary	11 *daily*. . .	The Clinical Professors	Hospital Ticket.[4]
Clinical Surgery[5]—Royal Infirmary, *Mon. & Thurs.*	20 Oct., 12 ,,	Prof. Annandale.	4 4
Clinical Medicine[5]—Royal Infirmary, *Tues. & Fri.*	19 Oct., 12-2 o'clock	Professors Sir T. Grainger Stewart, Fraser, and Greenfield; and Simpson on Diseases of Women	4 4

[1] Fees for second and subsequent attendances, see page 322.
[2] Besides Garden Fee of 5s. For Fees, see page 323.
[3] Three Months' Course.
[4] Only open to Students holding the Hospital Ticket.

WINTER SESSION—*continued.*

Classes.	Days of Opening and Hours of Lectures.	Professors.	Class Fees.[1]
Zoology (Elementary)[2]	18 Oct., 12 o'cl.	Prof. Ewart. ...	£4 4
Do. (Elementary Practical)[2]	18 Oct.		2 2[3]
Do. (Advanced)[2]	18 Oct., 1.30 ,,		3 3[3]
Anatomy	18 Oct., 1 ,,	Prof. Sir William Turner	4 4
Practical Anatomy	1 Oct., *daily*		3 3
Pathology	18 Oct., 2 o'cl.	Prof. Greenfield.	4 4
Practical Pathology	19 Oct., *daily*		3 3
		Lecturers.	
Cl. Instruc. on Dis. of Children at R. Hosp. for Sick Children[5]	18 Oct., & 10 Jan., 11 o'cl.	Jas. Carmichael, M.D., John Playfair, M.D.	2 2[4]
Practical Physiology (Advanced)[6]	24 Oct., 11 ,,	E. W. Carlier, M.D.	4 4[4]
Vertebrate Morphology (with Laboratory Work)	18 Oct., 2 ,,	John Beard, D.Sc.	3 3[3]
Comparative Embryology	10 Jan., 2 ,,		3 3[4]
Physics[2]	18 Oct., 3 ,,	C. G. Knott, D.Sc.	3 3
Regional Anatomy (Anatomical Demonstrations)	19 Oct., 4 ,,	David Hepburn, M.D.	2 2[7]
Diseases of the Eye		G. A. Berry, M.B.	2 2[4,8]
Experimental Pharmacology	14 Oct.	W. C. Sillar, M.B., B.Sc.	3 3[4]
Pathol. Bacteriology	25 Oct.	Robert Muir, M.D.	3 3[4]
Diseases of the Larynx, Ear, and Nose (*Tues. & Fri.*)	4 Nov., 11 ,,	Peter M'Bride, M.D., C.M.	2 2[8]

1 Fees for second and subsequent attendances, see p. 322.
2 Three Months' Course.
3 Besides charge of 10s. for Laboratory Expenses.
4 Five Shillings University Entrance-Fee for Non-Matriculated Students.
5 Two courses, each qualifying. Only open to Students holding the Hospital Ticket. See page 323.
6 This Class meets for two hours twice a week throughout the Winter Session.
7 When taken along with Practical Anatomy, £1, 1s.
8 Only open to Students holding the Hospital Ticket.

SUMMER SESSION, 1899.

The Classes will be opened as follows, and will meet daily (Saturdays excepted), unless otherwise stated.

Classes.	Days of Opening and Hours of Lectures.	Professors.	Class Fees.[1]
Elementary Botany.....	2 May, 8 o'cl.	Prof. Bayley Balfour.	£4 4[2]
Practical Botany..... Field Demonstrations on *Saturdays*.	2 May, 9 ,,		2 2[2]
Operative Surgery and Surgical Appliances	18 April	Prof. Chiene....	3 3
Medical Jurisprudence	2 May, 9 ,,	Prof. Sir Henry D. Littlejohn.	4 4
Public Health and Sanitary Science.....	... ...	... ...	...
Prac. Materia Medica (incl. Pharmacy).....	2 May, 10 ,,	Prof. Fraser.....	3 3
Practical Pathology....	2 May, 10 ,,	Prof. Greenfield.	3 3
Obstetrical and Gynecol. Operations—(*Tues. & Fri.*)	2 May, 10 ,,	Prof. Simpson.	3 3
Practical Physiology....	2 May, *several hours.*	Prof. Rutherford.	3 3
Zoology (Elementary)..	2 May, 12 o'cl.	Prof. Ewart.	4 4
Zoology (Elemy. Prac.)	2 May.[4]		2 2[3]
Invertebrate Zoology...			2 2[3]
Do., with Laboratory Work.....			3 3[3]
Clinical Surgery,[5] Royal Infir. (*Mon. & Thur.*)	4 May, 12 ,,	Prof. Annandale.	3 3
Clinical Medicine,[5] Royal Infirmary (*Tues. & Fri.*)	2 May, 12 to 2	Professors Sir T. Grainger Stewart, Fraser and Greenfield; and Prof. Simpson on Dis. of Women.	3 3
Clinical Instruction in the Royal Infirmary..	12 *daily.* . .	The Clinical Professors.	Hospital Ticket.[6]
Physics	2 May, 12 ,,	Prof. Tait.	3 3
Chemistry (Organic)....	2 May, 1 ,,	Prof. Crum Brown.	2 2
Do. (Practical)..	2 May, 2 ,,		3 3
Anthropology—(*Tues., Wed., Th.*)	2 May, 2 ,,	Prof. Sir W. Turner.	2 2[7]

[1] Fees for second and subsequent attendances, see page 322.
[2] Besides Garden Fee of 5s.
[3] Besides charge of 10s. for Laboratory Expenses.
[4] At hours to be arranged.
[5] Only open to Students holding the Hospital Ticket.
[6] See Fees, page 323.
[7] When taken with Practical Anatomy, £1, 1s.

SUMMER SESSION—*continued.*

Classes.	Days of Opening and Hours of Lectures.	Professors.	Class Fees.[1]
Practical Anatomy.....	1 May, *daily.*	Prof. Sir W. Turner and Demonstrators.	£ 2 s. 2
		Lecturers.	
Diseases of the Eye ...	May, 9 o'cl.	Geo. A. Berry, M.B.....	2 2[2,3]
Clinical Instruction on Diseases of Children, at Royal Hospital for Sick Children[3]..... (*Tues. and Fri.*)	5 May, 11 ,,	James Carmichael, M.D., John Playfair, M.D.	2 2[2]
Regional An tomy (Anatomical Demonstrations)[4].....	2 May, 11 *daily.*	David Hepburn M.D.....	...
Mental Diseases, with Clinical Instruction at Morningside Asylum (*Mon. Wed. & Frid.*)	8 May, 3 o'cl.	Thos. S. Clouston, M.D.	2 2[2]
Diseases of the Larynx, Ear, and Nose..... (*Tues. & Fri.*)	4 May, 3 ,,	P. M'Bride, M.D., C.M..	2 2[2]

[1] Fees for second and subsequent attendances, see below.
[2] Five Shillings University Entrance-Fee for Non-Matriculated Students.
[3] Only open to Students holding the Hospital Ticket.
[4] Free when taken along with Practical Anatomy.

FEES FOR SECOND AND SUBSEQUENT ATTENDANCES.

Second attendances on £4, 4s. Courses, £3, 3s.; on £3, 3s. Courses, £2, 2s.; subsequent attendances free. Second attendances on £2, 2s. Courses, no reduction; third or subsequent attendances, £1, 1s. Second or subsequent attendances on Class of Diseases of Children, £1, 1s. Clinical Surgery: nine months' ticket, if taken primarily, £6, 6s. (perpetual ticket); three months' after a six months' Course, £3, 3s.; three months' primary entry, £3, 3s.; second three months, £2, 2s.; third three months, £2, 2s. Perpetual ticket for initial payment for any Course in the Faculty, £6, 6s. Practical Classes and Laboratories, no reduction.

OPPORTUNITIES FOR HOSPITAL PRACTICE.

Royal Infirmary, Edinburgh.—At 11 o'clock daily. 780 beds. Perpetual Ticket, in one payment, £12; Annual Ticket, £6, 6s.; Six Months, £4, 4s.; Three Months, £2, 2s. Separate payments, amounting to £12, 12s., entitle to a Perpetual Ticket.

Royal Edinburgh Hospital for Sick Children.—96 beds, of which 24 are reserved for Surgical Cases. Hospital Ticket for one year, £1, 1s., entitling Student to attend the General Practice of the Hospital, and to take out the Classes.

Edinburgh Royal Maternity and Simpson Memorial Hospital.—38 beds available for Clinical Instruction. The fees charged are:—For each Six External Cases, £1, 1s.; for three months course of Internal Clinical Instruction, £1, 1s.

City Hospital, Edinburgh.—For Fevers and Infectious Diseases. Total number of beds, 400. Average daily number of patients during 1896, 302. There is at present no fee charged.

Royal Edinburgh Asylum for the Insane.—300 beds, available for Clinical Instruction to members of the Class of Mental Diseases. The fee for the course is £2, 2s.

Number of beds available for the Clinical Instruction of Students of the University, 1614.

MATRICULATION.

Students are required to take out their Matriculation and Class Tickets not later than fifteen days after the beginning of the course. Matriculation consists in paying annually an entrance fee to the University, and in inscribing the name in the Students' Album.

All Candidates for Degrees, not Students of the University, availing themselves of the permission to attend the Classes of Extra-Academical Teachers in Edinburgh, must conform to the Regulations, Section VIII., 5, 6, page 353.

The Matriculation Fees, &c., are—

For the Academic Year (1st October to 1st October) .	£1 1 0
For the Summer Session only (1st May to 30th September)	0 10 6
Candidates appearing for Graduation Examinations or for Graduation, pay £1, 1s., unless previously matriculated for the whole year.	
University entrance-fee in lieu of Matriculation for each of certain additional Courses	0 5 0

CLASS SESSIONS.

There are Two Sessions in each year, viz.:—

I. The Winter Session, which opens on Tuesday, 18th October 1898, and closes on Friday, 24th March 1899. Practical

Anatomy begins on 1st, and Public Health Laboratory work on 3rd October 1898.

The Classes will meet for the last time before the Christmas Vacation on Wednesday, 21st December 1898, and will re-assemble on Wednesday, 4th January 1899.

II. The Summer Session, which opens on 2nd May, and closes on 14th July 1899. Practical Anatomy begins on 1st May.

LABORATORIES, MUSEUMS, &c.

The University contains the following Laboratories and Museums, several of the latter belonging in part to the Professors of the respective subjects :—

I. LABORATORIES.

THE PHYSICAL LABORATORY, established with the view of affording Students a practical knowledge of the construction and use of physical apparatus, and the mode of conducting experimental inquiries, is open daily from 10 to 3, under the superintendence of Professor Tait.

THE ROYAL BOTANIC GARDEN LABORATORY, open daily for the practical study of plants and for research, under the superintendence of the Professor, assisted by James Adam Terras, B.Sc., and J. H. Burrage, M.A.

PHYSIOLOGICAL LABORATORY, for the prosecution of Physiological Research, and for the study of Practical Physiology, open daily, under the superintendence of the Professor, assisted by E. W. Carlier, M.D., B.Sc. ; T. H. Milroy, M.D., B.Sc., and [2]

PRACTICE OF PHYSIC LABORATORY, for the study of Medicine, and for research in connection with the Practice of Physic, open daily, under the superintendence of the Professor, assisted by James G. Cattanach, M.B., C.M.

DISSECTING ROOMS, open daily under the superintendence of Professor Sir William Turner, assisted by David Hepburn, M.D.; E. J. H. Fraser, M.B., C.M. ; David Waterston, M.B., C.M. ; T. R. W. Armour, M.B., C.M. ; and other assistants. Open 1st October 1898, and 1st May 1899.

THE CHEMICAL LABORATORIES [1] (distinct from the Practical Chemistry Class Room), have accommodation for forty Students. They contain the necessary equipment for a complete course of instruction in

[1] Fees for Chemical Laboratory :—*Whole day*—Winter Session, £10, 10s. ; Oct.-Dec., Jan.-March, or Summer Session, £5, 5s. *Half day*—Winter Session, £6, 6s., Oct.-Dec., Jan.-March, or Summer Session, £3, 3s. Preference will be given to Students in the above order. Students who are not Matriculated may attend the Chemical Laboratory on payment of the Entrance Fee of 5s., in addition to the Laboratory Fee.

[2] Vacant at date of issue.

the various branches of chemical work and for research. The instruction given includes complex qualitative analysis, quantitative, inorganic and organic analysis (with special courses in gas analysis, assaying, &c.), and chemical preparations. The training is suited not only for students studying for Science and Arts Degrees or for the Examinations of the Institute of Chemistry, but also for persons desiring to qualify themselves as analysts, technical chemists, &c.

The Laboratories are open from 9.30 to 4.30 daily during the Winter and Summer Sessions, and are under the charge of Professor Crum Brown, assisted by Leonard Dobbin, Ph.D.; Hugh Marshall, D.Sc. ; and J. P. Longstaff.

Obstetrical and Gynecological Laboratory, for research and study of practical work, under the superintendence of the Professor, assisted by W. Fordyce, M.A., M.D.

Tutorial Class of Clinical Medicine, in the Wards of the Royal Infirmary, by Harry Rainy, M.A., M.B., C.M. ; D. A. Welsh, M.D. ; George Elder, M.D. ; under the superintendence of the Clinical Professors.

Natural History Laboratories, for study of the structure and development of Invertebrate and Vertebrate forms, open daily, under the superintendence of the Professor, assisted by J. Beard, D.Sc., Ph.D., and Gregg Wilson, M.A., D.Sc., Ph.D.[1]

Materia Medica Laboratories, for the study of Practical Materia Medica and Practical Pharmacy, and for Pharmacological and Pharmaceutical research, open daily, under the superintendence of the Professor, assisted by William C. Sillar, M.B., C.M., B.Sc.

Tutorial Class of Clinical Surgery and Surgical Pathology, in the Infirmary, by John Wheeler Dowden, M.B., C.M., and the Resident Surgeons, under the superintendence of the Clinical Professor.

Tutorial Class in Midwifery, by William Fordyce, M.B., C.M., under the superintendence of the Professor.

Public Health Laboratory, for Hygienic investigation, comprises three departments, viz. : a Chemical, a Bacteriological, and a Meteorological Department, open daily, under the superintendence of the Professor, assisted by[2]

Opens 3rd October 1898 and 2nd May 1899.[1]

Surgical Laboratory, divided into two parts—(*a*) General Surgical Pathology, (*b*) Bacteriology,—is utilised for teaching Systematic Surgery, and every facility is afforded for investigation, under the superintendence of the Professor, assisted by Harold J. Stiles, M.B., C.M.

[1] Fees—Winter Session, £10, 10s. ; Summer Session, £6, 6s.
[2] Vacant at date of issue.

PATHOLOGICAL LABORATORY, for the study of Pathological Anatomy and for Pathological Research, including Histological and Bacteriological Departments, under the superintendence of the Professor, assisted by Robert Muir, M.A., M.D., and D. A. Welsh, M.A., B.Sc., M.D.

THE ROYAL EDINBURGH ASYLUM is open to members of the Class of Mental Diseases for Practical Instruction, under the superintendence of the Physician-Superintendent.

PRACTICAL INSTRUCTION in the use of the Ophthalmoscope and in the detection of errors of refraction is given to members of the Class of Diseases of the Eye at the Eye Wards of the Royal Infirmary, under the Superintendence of the Lecturer.

II. MUSEUMS. See page 51.

GENERAL MEDICAL COUNCIL REGISTRATION OF STUDENTS OF MEDICINE.

According to the Regulations of the General Medical Council of the United Kingdom, all Medical Students must register in the Medical Students' Register of the General Medical Council within fifteen days after the commencement of Medical Study. Forms of application and full information regarding Registration may be obtained from James Robertson, Registrar of the Branch Council for Scotland, 48 George Square, Edinburgh.

MINIMUM CURRICULUM FOR DEGREES OF M.B. AND Ch.B., WITH SUGGESTED ORDER OF STUDY AND EXAMINATION.

Before beginning Medical Study, students must pass the Preliminary Examination in General Education, either at the University, or elsewhere, according to the requirements of the University. Immediately after entering on Medical Study, students must register in the books of one or other of the Registrars of the General Medical Council. The Registrar for Scotland is Mr James Robertson, 48 George Square, Edinburgh, from whom forms of Registration and all information on the subject may be obtained.

Medical Study may be begun either in October (Winter Session) or May (Summer Session), and must be engaged in for at least five years.

A.—*For Students beginning in Winter.*

FIRST WINTER SESSION.	Anatomy (Lectures).
Chemistry, including Practical Chemistry.	*Examination in Chemistry, including Practical Chemistry, and either Physics or Elementary Zoology.*
Physics,[1] or Elementary Zoology.	

[1] Three months' course.

FIRST SUMMER SESSION.
- Elementary Zoology or Physics.[1]
- Elementary Botany.
- *Examination in Elementary Botany and Elementary Zoology or Physics.*

SECOND WINTER SESSION.
- Practical Anatomy.
- Physiology.
- Surgery.

SECOND SUMMER SESSION.
- Practical Physiology.
- Practical Materia Medica.
- Clinical Surgery (with Dressership).
- Hospital.

THIRD WINTER SESSION.
- Materia Medica.
- Practical Anatomy.
- Clinical Surgery (with Dressership).
- Hospital.
- *Examination in Anatomy, Physiology, and Materia Medica and Therapeutics* (the last may be postponed to the end of the following summer).

THIRD SUMMER SESSION.
- Practical Pathology.
- Medical Jurisprudence and Public Health.
- Clinical Medicine.
- Hospital.
- *Examination in Materia Medica and Therapeutics* (if not previously taken).

FOURTH WINTER SESSION.
- Pathology.
- Medicine.
- Midwifery and Diseases Women and Children.
- Clinical Medicine (with Clerkship).
- Hospital.
- *Examination in Pathology, and in Medical Jurisprudence and Public Health* (the latter may be postponed to the end of the following summer).

FOURTH SUMMER SESSION.
- *Examination in Medical Jurisprudence and Public Health* (if not previously taken).

FOURTH SUMMER AND FIFTH WINTER SESSION.
- Clinical Medicine.
- Clinical Surgery.
- Mental Diseases.
- Ophthalmology.
- Post-mortem Examinations.
- Operative Surgery.
- Fevers.
- Diseases of Children.
- Diseases of the Larynx, Ear, and Nose.
- Out-practice of an Hospital, Dispensary, &c.
- Midwifery Cases and Practice.
- Vaccination.
- Hospital.

FIFTH SUMMER SESSION.
- *Examination in Surgery and Clinical Surgery, Medicine and Clinical Medicine, and Midwifery.*

B.—*For Students beginning in Summer.*

FIRST SUMMER SESSION.
- Elementary Botany.
- Elementary Physics.[1]
- *Examination in Elementary Botany and Physics.*

FIRST WINTER SESSION.
- Chemistry, including Practical Chemistry.
- Elementary Zoology.
- Anatomy (Lectures).

[1] Three months' course.

Examination in Chemistry, including Practical Chemistry and Elementary Zoology.

SECOND SUMMER SESSION.
- Practical Anatomy.
- Practical Physiology.

SECOND WINTER SESSION.
- Physiology.
- Surgery.
- Practical Anatomy.

THIRD SUMMER SESSION.
- Practical Anatomy.
- Practical Materia Medica.
- Clinical Surgery (with Dressership).
- Hospital.

THIRD WINTER SESSION.
- Practical Anatomy.
- Materia Medica.
- Clinical Surgery (with Dressership).
- Hospital.
- *Examination in Anatomy, Physiology, and Materia Medica and Therapeutics* (the last may be postponed to the end of the following summer).

FOURTH SUMMER SESSION.
- Practical Pathology.
- Medical Jurisprudence and Public Health.
- Clinical Medicine.
- Hospital.
- *Examination in Materia Medica and Therapeutics* (if not previously taken).

FOURTH WINTER SESSION.
- Pathology.
- Medicine.
- Midwifery and Diseases of Women and Children.
- Clinical Medicine (with Clerkship).
- Hospital.
- *Examination in Pathology, and Medical Jurisprudence and Public Health* (the latter may be postponed to the end of the following summer).

FIFTH SUMMER SESSION.
- *Examination in Medical Jurisprudence and Public Health* (if not previously taken).

FIFTH SUMMER AND FIFTH WINTER SESSION.
- Clinical Medicine.
- Clinical Surgery.
- Mental Diseases.
- Ophthalmology.
- Post-mortem Examinations.
- Operative Surgery.
- Fevers.
- Diseases of Children.
- Diseases of the Larynx, Ear, and Nose.
- Out-Practice of an Hospital, Dispensary, &c.
- Midwifery Cases and Practice.
- Vaccination.
- Hospital.
- *Examination in Surgery and Clinical Surgery, Medicine and Clinical Medicine, and Midwifery.*

Courses of Lectures, &c.

1898-1899.

I. BOTANY.

PROFESSOR BALFOUR.

Winter Session, 1898.

LECTURES.—A three months' Course of Advanced Lectures and an Advanced Course in Practical Botany will be given in the Winter Session.

Summer Session, 1899.

1. LECTURES.—The Course is a general one—Morphological, Physiological, and Taxonomic. Lectures are given every Monday, Tuesday, Wednesday, Thursday, and Friday. In addition, lectures on special parts of the subject are given at intervals during the Session.

2. PRACTICAL CLASS.—In this class opportunity is given for the examination of microscopic structure of plants, and for the study of life-histories of plants illustrating the lectures. It is conducted by the Professor and Assistants.

3. EXCURSIONS. — Excursions are made on Saturdays for the practical study of plants in the fields.

The Royal Botanic Garden, with the Botanical Museum and Herbarium, are open daily for the examination of living as well as preserved specimens of plants.

II. NATURAL HISTORY.

PROFESSOR EWART.

1. LECTURES ON ZOOLOGY.—*Winter Session.*—The first part of the course will treat of the Principles of Biology as illustrated by the Life-History, Morphology, and Physiology of one of the Vertebrata. The Distinctive Characters of the Chordata and the structure, habits, &c., of a series of vertebrate types will next be considered. The rest of the course will be chiefly

devoted to : (1.) Leading types of Invertebrates ; (2.) Structure and life-history of the more important animal parasites ; and (3.) Elements of Embryology, Classification, and Geographical Distribution of Animals.

Summer Session.—An Elementary Course, qualifying for the First Professional and the First B.Sc. Examinations, and *pro tanto* for graduation in Arts, will be given by the Professor, during the Summer Session 1899.

2. ELEMENTARY PRACTICAL ZOOLOGY.—*Winter and Summer Sessions.*—In these Classes Students have the opportunity of studying practically the more important types described in the Lectures, amongst others :—Amœba, Paramœcium, Hydra, Hirudo, Arenicola, Helix, Astacus, Raia, Rana, Columba, and Lepus.

3. ADVANCED COURSES.—These Courses are intended to assist students preparing for the Degree of B.Sc. in Zoology.

(1.) The Intermediate Course will be held during the Summer Session, and will be devoted to the Systematic Zoology of the Invertebrata. This class is prescribed for the Second B.Sc. Examination in Zoology and Comparative Anatomy.

(2.) During the first half of the Winter Session an Advanced Course of Lectures and Laboratory work will be given by Dr Beard, University Lecturer on Vertebrate Zoology, on the Comparative Morphology of the Vertebrata. (See Faculty of Science).

The Laboratory work will extend over the first half of the Winter Session and the Summer Session.

RESEARCH WORK.—The Laboratories are also available during both Sessions for research. For Regulations, see page 361.

COMPARATIVE EMBRYOLOGY.

VERTEBRATE MORPHOLOGY.

J. BEARD, D.SC.

For Synopses, see under Faculty of Science.

III. CHEMISTRY.

PROFESSOR CRUM BROWN.

1. LECTURES—In the Lectures the general laws of chemical action are explained and illustrated.

The chief non-metallic elements and their more important compounds are discussed in detail. The metals and the different series of metallic salts are considered more generally, details being given in the case of the more important substances.

The principles upon which the classification of organic substances is based are explained, and the properties of the chief groups illustrated by means of examples.

Tutorial Classes, once a week, are conducted by Dr Dobbin.

A course of 50 lectures on Organic Chemistry is delivered in Summer.

A Class for Advanced Students is held in Winter. The subject for the Winter of 1898-99 is "Organic Alkaloids."

2. LABORATORY.—In the Laboratory, Students who can devote several hours each day to work, are taught Chemical Analysis (including Mineral Analysis, Organic Analysis, and Gas Analysis), the preparation of chemical substances, and the examination and determination of their properties. Full equipment for instruction in metallurgical work and assaying has recently been provided. Students who are sufficiently advanced in such practical work may engage in the investigation of chemical problems under the superintendence of the Professor and the chief assistant.

3. PRACTICAL CLASSES.—The work of these classes consists in the study of the reactions of the commoner Salts.

Class-Book.—Notes on Reactions of Salts (Thin).

Students who have worked at least three months in the Laboratory need not attend the class of Practical Chemistry before appearing for the First Professional Examination in Medicine, for the First B.Sc. Examination, or for Examination in Chemistry for M.A.

IV. PHYSICS.

PROFESSOR TAIT (*Summer*), and CARGILL G. KNOTT, D.Sc. (*Winter*), *Lecturer.*

The subjects embraced in the Course of Physics are :—

1. Properties of Matter—including Inertia, Gravitation, Molecular Forces, &c.

2. Abstract Dynamics—including Kinematics and Newton's Laws of Motion, with their consequences as regards Statics and Kinetics of Solid, Liquid, and Gaseous Bodies, and the Physical Measurement of Time.

3. Sound, and Wave-propagation in general, Intensity, Pitch, and Quality of Musical Sounds, Harmonics, Concords, &c.

4. Heat, its Nature, Effects, Measurement, Transference, and Transformations—Measurement of Temperature and of Absolute Temperature ; Thermo-dynamics.

5. Light (1) Geometrical Optics, Speed of Light, Laws of Reflection and Refraction ; Construction and Effects of Mirrors, Prisms, Lenses, and Microscopes ; Images, Conditions of Distinct Vision ; (2) Physical Optics, Interference, Dispersion, Diffraction, Double Refraction, Polarization, Spectrum Analysis.

6. Electricity, including Frictional and Voltaic Electricity Thermo- and Magneto- Electricity, Electro-Dynamics, and Magnetism, with their practical applications. Measurements of Potential, Electromotive Force, Current, &c., Batteries, Dynamos, Electrometers, Galvanometers, Voltameters, &c.

Text-books : Tait's *Properties of Matter ;* Knott's *Physics.*

V. ANATOMY.

PROFESSOR SIR WILLIAM TURNER.

Winter Courses.

1. LECTURES ON ANATOMY, at 1 P.M.—It is intended in this Course to bring before the Student, in a systematic manner, the structure of the Human Body. The different systems and organs will be described, both in the more obvious arrange-

ments and relations of parts which can be examined by the naked eye, and in their more minute or microscopic structure. The Course includes, therefore, both Textual or General Anatomy and Descriptive Anatomy. The Lectures are illustrated by recent dissections, by wet and dry preparations, by a large collection of Osteological specimens, and by drawings and diagrams. Structures too minute to be recognised by the naked eye are demonstrated under the Microscope.

To assist the Junior Members of the Lecture Class to acquire a knowledge of Osteology, Tutorial Demonstrations on the bones will be given during the earlier months of the Session without additional fee. All the members of this class have access to a systematically arranged series of osteological specimens and of models. Written Examinations for both Junior and Senior Students are held periodically during the Session.

Text-Books.—Gray's "Anatomy," or Cleland and Mackay's "Anatomy," Quain's "Elements of Anatomy," Holden's "Osteology."

2. PRACTICAL ANATOMY, under the superintendence of the Professor, aided by the Demonstrators, David Hepburn, M.D., C.M.; E. H. Fraser, M.B., C.M.; David Waterston, M.B., C.M.; and T. R. W. Armour, M.B., and by several other assistants. Examinations of both Junior and Senior Students on dissected parts are conducted by the Demonstrators and the Professor. Special tutorial Demonstrations will be given to Senior Students on the joints, brain, organs of special sense, and other viscera.

This Course will commence on 1st October. The Dissecting-rooms are open from 9 A.M. to 5 P.M., and on Saturdays from 9 A.M. to noon. The Mackenzie Bursaries are awarded to members of this Class for proficiency in dissection.

Text-Books.—"Demonstrations of Anatomy," by Ellis, or Heath's "Practical Anatomy," or Holden's "Manual of the Dissection of the Human Body," or Cunningham's "Manual of Practical Anatomy."

REGIONAL ANATOMY (ANATOMICAL DEMONSTRATIONS).

DAVID HEPBURN, M.D., *Lecturer.*

In this Course, which is conducted in the Theatre, the structure of the human body is displayed and demonstrated topographically, from the surface inwards.

This Class meets eighty times, and non-competitive Written Examinations are held monthly during the Session.

Summer Courses.

PRACTICAL ANATOMY.

PROFESSOR SIR WILLIAM TURNER.

This Course, beginning on 1st May, is the same as in Winter. The Rooms are open from 9 A.M. to 5 P.M.; on Saturdays from 9 A.M. to noon. Examinations are conducted on dissected parts by the Professor and by the Demonstrators, David Hepburn, M.D., C.M.; E. H. Fraser, M.B., C.M.; D. Waterston, M.B., C.M.; and T. R. W. Armour, M.B.; and other assistants, and the joints, brain, and organs of sense will be specially demonstrated.

REGIONAL ANATOMY (ANATOMICAL DEMONSTRATIONS).

DAVID HEPBURN, M.D., *Lecturer.*

This Course, open without additional Fee to those engaged in Practical Anatomy in the Summer, will consist of demonstrations on some special departments of Anatomy.

VI. PHYSIOLOGY.

PROFESSOR RUTHERFORD.

Course of at least 100 Lectures, held in Winter:—

1. The Structure, Composition, and Functions of the Elementary Tissues of the Body.
2. The Nutrition of the Body, including Circulation, Respiration, Alimentation, Nutrition of the Tissues, Excretion, together with the minute structure of the organs concerned.
3. Animal Heat.
4. Voice and Speech.

5. The minute structure and physiology of the Sense organs and the special physiology of the Nervous System.

6. Reproduction and Development.

There is a printed Syllabus with short notes of the Lectures.

PRACTICAL PHYSIOLOGY.

This Course is divided into three sections—

1. *Practical Histology*, in which every Student prepares, examines, and preserves for himself most of the tissues and organs of the body. Each student is provided with a microscope, and all reagents.

2. *Practical Chemical Physiology*, in which every student performs the qualitative and quantitative analysis of the Urine in its normal and abnormal conditions, with special reference to clinical work, and such practical work at the Chemistry of Proteids and Carbohydrates, Blood, Milk, Bile, and Digestion, as is possible in a class. There is a printed Syllabus with short notes of this section of the Course.

The above sections of the class are held both in Winter and in Summer. The class meets sixty times.

3. *Demonstrations of Physiological Instruments.*—This section of the class is held only in Winter, and is open to all who have attended the other sections of the course.

ADVANCED PRACTICAL PHYSIOLOGY.

See Synopsis under Faculty of Science.

E. W. CARLIER, M.D., B.Sc., *Lecturer.*

PHYSIOLOGICAL RESEARCH.

The Physiological Laboratory is open daily for the prosecution of Research. Application must be made to the Professor.

VII. MATERIA MEDICA.

PROFESSOR THOMAS R. FRASER.

Materia Medica comprises the subjects of pharmacognosy, pharmacy, pharmacology, and therapeutics, diet, remedial uses of electricity and galvanism, heat and cold, climate, &c. In-

struction in Materia Medica is given in (A) a course of 100 Lectures during the Winter Session, and in (B) Practical Classes during the Summer Session, and of equivalent duration during the Winter Session.

A.—LECTURES ON MATERIA MEDICA—This course includes the natural history, sensible and chemical properties, physiological action (or pharmacology), therapeutical uses, and modes of administering remedies, ordinarily so called. Such remedies consist of (*a*) inorganic substances; (*b*) chemical products; (*c*) vegetable substances; (*d*) animal substances. Although formerly comprised in the course of instruction in Materia Medica, the remedial uses of Diet, Electricity, Climate, &c., cannot now be taught with any advantage in this course, as, under the New Medical Ordinances, the study of Materia Medica is required to be completed before the student has entered upon the study of the diseases to which the above are applicable.

B.—PRACTICAL CLASSES.—*Practical* instruction is given in the following subjects, which cannot satisfactorily be taught in lectures:—1. Pharmacy, or the processes for obtaining the pharmaceutical preparations of drugs. 2. Prescription-writing 3. Dispensing, or the making up of medicines in forms suitable for administration in disease.

It is recommended that the Practical Class be attended before the lectures on Materia Medica. Practical classes are taught in the Summer Session daily, at such hours as are found most convenient. A winter class will also be formed in October.

RESEARCH LABORATORIES.

The above laboratories will be open daily for research on the pharmacological action and chemical composition of medicinal substances, under the superintendence of the Professor and his assistants. Application to be made to the Professor.

EXPERIMENTAL PHARMACOLOGY.

W. C. SILLAR, M.B., C.M., B.Sc., *Lecturer.*

This course consists of (1) practical instruction in the methods employed in pharmacological research and (2) the experimental

study of the pharmacological action of a number of typical medicinal substances.

The Course is adapted for students who desire a practical knowledge of pharmacology, and who have attended the Class of Materia Medica.

Attendance at the Class of Advanced Practical Physiology is recommended.

The Course will commence in October.

VIII. PATHOLOGY AND MORBID ANATOMY.

PROFESSOR GREENFIELD.

This Course includes General Pathology, General Pathological Anatomy and Histology, and Systematic Morbid Anatomy :—

1. General Pathology (including General Pathological Anatomy), *i.e.*, the study of the processes of disease, &c. Under this head are considered Degenerative Processes, Inflammation, Repair, Morbid Growths, &c.

2. General Etiology is treated in fuller detail with reference to Parasitic and Infective Diseases, and includes Bacteriology and methods of bacteriological research.

3. Systematic Morbid Anatomy and Histology—a study of the more important diseases of the principal systems and organs of the body.

In illustration of the lectures, there are frequent naked eye, microscopic, and lantern demonstrations.

Practical Pathology.

Classes for Practical Instruction in Morbid Anatomy and Pathological Histology are conducted in the Pathological Laboratory—microscopes and other necessary apparatus being supplied. The Course consists of—1st. Naked Eye Demonstrations; 2nd. Histological investigation and preparation of Morbid Structures and Organs; 3rd. Elementary Bacteriology.

In Winter the class meets five times a week, from the beginning of the Session till the end of January; in Summer, five times a week, from the beginning of May till the end of July.

The Laboratory is also open daily from 10 A.M. till 4 P.M. for Pathological Research, under the Professor and his Assistants.

PATHOLOGICAL BACTERIOLOGY.

ROBERT MUIR, M.D., *Lecturer.*

The Course is a practical one, consisting of Laboratory Instruction, Demonstrations, and Lectures :—(a) *General.*—Morphology and Life History of Micro-organisms ; Preparation of Culture Media ; Methods of Isolation and Cultivation, including Anaerobic Cultures ; Methods of Staining ; Separation of Bacterial Products ; Inoculation, &c.

(b) *Special.*—A Systematic Study of Organisms Pathogenic to the Human Subject—their characters, their modes of producing disease, &c. A number of the more important non-pathogenic organisms are also studied.

The Course is given in Winter, but may also be given in Summer.

Text-Book.—"Manual of Bacteriology," by Muir and Ritchie.

IX. MEDICAL JURISPRUDENCE.

PROFESSOR SIR HENRY DUNCAN LITTLEJOHN.

Part I.—Medical Jurisprudence.

MEDICAL EVIDENCE GENERALLY.

(1.) Documentary—(2.) Oral—(3.) Experimental—Examination of the living ; identity ; examination of the dead ; identity ; cause of death ; exhumations, autopsies.

MEDICAL EVIDENCE SPECIALLY.

Questions affecting Health or Life.—(1.) Assaults and Homicide—Wounds and other external injuries ; asphyxia. Starvation. Heat and cold. Poisons—(2.) Suicide—(3.) Offences against Chastity — Rape, &c. ; concealment of pregnancy ; criminal abortion ; infanticide—(4.) Malpraxis and Neglect of Duty.

Questions affecting Civil Rights or Social States.—Marriage and Divorce. Impotence and sterility. Live birth. Survivorship. Insanity. Feigned diseases.

Part II.—Medical Police. Public Health.

HYGIENE OF INDIVIDUALS.

Man—Age and development. Sex. Constitution.

External Agencies—Food and drink. Air. Clothing. Ablutions. Exercise.

Habits and Modes of Life—Temperance. Celibacy and Marriage. Professions: learned, mechanical, criminal. Punishments. Prostitution.

Duration and Expectancy of Life—Life Assurance.

HYGIENE OF COMMUNITIES.

Sanitary Administration. — Climate — Causing disease; remedying disease.

Towns, Camps, and Private Habitations—Topographical position; water supply; heating and lighting; ventilation; drainage and sewerage.

Public Buildings.—Schools; churches; hospitals; theatres; prisons.

Cemeteries. Quarantine Establishments. Epidemics; Endemics. Disinfectants.

Text-Books. — Taylor's "Medical Jurisprudence," Guy's "Principles of Forensic Medicine," Parkes' "Practical Hygiene," Wilson's "Handbook of Hygiene," Louis Parkes' "Hygiene," Wynter Blyth's "Manual of Public Health," Whitelegge's "Hygiene and Public Health," Smith's "Laws Concerning Public Health," Vesey Fitzgerald's "Epitome of the Laws affecting Health," Newsholme's "Vital Statistics," Dykes' and Stuart's "Manual of Public Health Acts."

Public Health Laboratory.

The Laboratory comprises the Chemical Laboratory, the Bacteriological Laboratory, and a station for meteorological observations, and the examination of emanations from the soil —all open daily during the Winter and Summer Sessions, from 10 to 4, under superintendence of the Professor, assisted by Charles Hunter Stewart, D.Sc., M.B., and James Buchanan Young, M.B., D.Sc. (P.H.).

The work in these Laboratories will constitute an advanced

course in the Methods of Hygienic investigation, and is intended for those preparing for the Degrees of Science in Public Health, or for the duties of Medical Officer of Health.

X. PRACTICE OF PHYSIC.

PROFESSOR SIR THOMAS GRAINGER STEWART.

This Course comprises—

I. An account of the nature, and more particularly of the clinical characteristics, and the treatment of the different types of morbid action.

II. An account of the morbid anatomy, clinical history, causes, diagnosis, prognosis, and treatment of the diseases of the different systems and organs.

It is intended that each Course shall be, as far as possible, complete; but that, while the general principles (included in Part I.) shall be fully discussed each session, the diseases of individual systems (included in Part II.) shall be taken up in different order year by year, and certain systems selected for more minute consideration.

The Course is illustrated by specimens from the Anatomical Museum, and from the Professor's private collection, as well as by numerous drawings, diagrams, and charts.

Tutorial Class.

Practical instruction in connection with the Course is given to the members of the Class by the Assistant.

Text-Books. — Fagge's, Roberts's, Bristowe's, Osler's, or Frederick Taylor's "Practice of Medicine." Students are also advised to consult the Professor's "Introduction to the Study of Nervous Diseases," his "Clinical Lectures on Important Symptoms."

MENTAL DISEASES.

THOMAS S. CLOUSTON, M.D., *Lecturer.*

This Course consists of—

1. Systematic Lectures in the University during the Summer Session on the Classification, Symptoms, Causes, and Treatment of Mental Diseases.

2. Pathological demonstrations, naked eye, lantern, and microscopic, in the University and at the Royal Asylum, Morningside, of the Morbid Anatomy of Insanity. Students will have an opportunity of original investigation in the Pathological Museum of the Asylum, under the Pathologist of the Institution.

3. Clinical instruction at the Royal Asylum, Morningside (West House), in all the forms of Mental Disease. Students have the opportunity of personally coming in contact with and examining the cases, so as to learn the modes of managing and dealing with patients labouring under Mental Disease, and they are exercised in the diagnosis of Insanity and the drawing up of certificates; the aim being to enable them to recognise its early stages, to distinguish its varieties, to adopt suitable treatment, and to advise the relatives as to sending the patient to an asylum. There is a clinical field of 500 beds, comprising all the wards except those for private patients. This part of the course extends through the Summer and the last month of the Winter Session.

4. Instruction in regard to the medico-legal, hereditary, educational, and social relations of Mental Disease, and on its bearings and significance in ordinary medical practice.

There are Free Clinical Clerkships, tenable for three months, in the Royal Edinburgh Asylum, and in several other Asylums, in connection with the class.

Text-Book.—Dr Clouston's "Clinical Lectures on Mental Diseases."

XI. SURGERY.

PROFESSOR CHIENE.

Winter Session.

1. *Lectures.* This Course is devoted to a systematic consideration of the Principles and Practice of Surgery. Each course is intended to embrace, as far as possible, a complete view of the present aspects of the Science and Practice of Surgery.

Written examinations are held at stated periods, and at the

end of the Session a practical examination is held on the work of the Tutorial Classes.

2. *Tutorial Instruction*, at hours most convenient for the students, includes—

(*a*) *Practical Instruction* in *Bandaging* and the *Treatment* of *Fractures* and *Dislocations* on the living subject. This class is divided into sections for Senior and Junior Students.

(*b*) Weekly Revisal of the Lectures, together with Demonstrations of the Preparations in the Surgical Museum illustrative of the Lectures on Surgery.

(*c*) Special Demonstrations to Senior Students on

(1) Surgical Anatomy.
(2) Surgical Pathology.
(3) Surgery of the Ear.

These Demonstrations are illustrated by museum specimens and lantern slides.

Summer Session.

The Summer Session is devoted to the Practical Aspects of Surgery. Special attention is given to Surgical Anatomy and Operative Surgery. The class meets in April, May, and June. Oral examinations and tutorial instruction in the Treatment of Fractures and Dislocations, and in the uses of surgical instruments, form a special part of the course. Special demonstrations on Surgical Pathology.

The Surgical Laboratory for (1) Surgical Pathology; and (2) Bacteriology, is open daily for original work during the Winter and Summer Sessions, under superintendence of the Professor, assisted by Harold J. Stiles, M.B. Applications to be made to the Professor.

Text-Books—Winter Session.—The Professor's "Lectures on the First Principles of Surgery." Keen and White's Text-Book of Surgery. *Summer Session.*—The Professor's "Lectures on Surgical Anatomy," and Joseph Bell's "Manual of Surgical Operations," 1892; Kocher's Operative Surgery (translated by H. J. Stiles).

DISEASES OF THE EYE.

GEORGE ANDREAS BERRY, M.B., C.M., *Lecturer.*

The Course will consist of twelve systematic lectures in the University, and of twelve clinical lectures at the Royal Infirmary.

In addition there will be meetings for individual clinical instruction, including Refraction and Ophthalmoscopy.

Text-Books.—Berry's "Diseases of the Eye," Swanzy's "Handbook on Diseases of the Eye," Nettleship on "Diseases of the Eye," Fuch's "Text-Book of Ophthalmology."

DISEASES OF THE LARYNX, EAR, AND NOSE.

P. M'BRIDE, M.D., C.M., *Lecturer.*

The Course of Instruction given in the Royal Infirmary consists of not less than eighteen lectures, of which six are systematic and twelve are clinical. These are delivered on Mondays and Thursdays, at 11 o'clock A.M.

A concise account of the more common diseases of the Ear, Nose, and Throat, and their treatment, is given in the systematic lectures.

In the clinical lectures, patients are brought before the class and their condition is examined into and discussed, and, where possible, operative treatment is carried out. Methods of examination, instruments and appliances used in diagnosis and treatment are demonstrated.

Members of the class may attend the out-patient cliniques of the Department on Tuesdays and Fridays at eleven o'clock, and operations in the Wards.

Tutorial instruction in the practical methods of examining patients, and in the use of instruments and appliances, is given by Dr Logan Turner, at suitable hours in connection with the lectures.

XII. MIDWIFERY AND THE DISEASES OF WOMEN AND CHILDREN.

PROFESSOR SIMPSON.

The Course of Instruction comprises Lectures on—

I. Anatomy and Physiology of the Female Organs of Reproduction.

II. Physiology, Pathology, and Therapeutics of Pregnancy.

III. Parturition—Natural (Eutocia), and Morbid (Dystocia).

IV. Hygiene, Pathology, and Therapeutics of the Puerperal State.

V. Hygiene, Pathology, and Therapeutics of Infancy.

VI. Special Pathology and Therapeutics of the Female Organs of Reproduction.

One day weekly is devoted to the Gynecological Section of the Course; and the Diseases of Women may be studied clinically in the Royal Infirmary, in the Buchanan Medical Ward, in connection with the class of Clinical Medicine.

Midwifery may be studied clinically in the Royal Maternity, of which the Professor is, *ex officio*, one of the Medical Officers, and where he attends during the first three months of the Winter Session. The Professor makes a special Clinical visit with the Students who have taken the Maternity Ticket, on Saturdays, at 10 A.M.; and he or one of the Assistant Physicians gives Clinical Instruction on Wednesday afternoons at 4 P.M.

After the Class-roll is made up, Tutorial classes are formed for Practical Instruction in the use of Obstetric and Gynecological Instruments and Appliances.

Summer Session.

A Course of Instruction in Obstetric and Gynecological Operations, with Demonstrations of the use of Instruments and Appliances, is conducted in the Summer Session, at 10 A.M.

On Tuesdays and Fridays the Professor gives Lectures and Demonstrations. On the other days the sections of the class are trained in the investigation and treatment of Female Diseases, and the members of the class have an opportunity of practising operations on lay figures.

Text-Books.—Playfair's, Lusk's, or Parvin's "Midwifery." The Professor's "Contributions to Obstetrics and Gynecology.' Hart and Barbour's "Manual of Gynecology." Ballantyne's "Diseases of Infancy."

XIII. CLINICAL SURGERY.

PROFESSOR ANNANDALE.

The subjects of this Course are the symptoms, diagnosis, pathology, and treatment of Surgical diseases and injuries as met with in the living body, and the modifications and com-

plications which occur in connection with them. Patients are brought before the class in the University-Clinical Surgical Theatre of the Infirmary, and their condition is carefully examined and discussed, due regard being taken to avoid injuring their feelings or aggravating their disease. The history and probable nature of the case having been stated, the proper treatment is suggested and described, and any required operations or other treatments are carried out at once, or at the first convenient opportunity. Ward Cliniques are given at least two days in the week by the Professor, and on other two days in the week the cases of patients attending the out-patient department are specially demonstrated by the Assistant Surgeon, Mr Hodsdon, so as to instruct the students in the common and minor surgical affections. Practical instruction as to the examination of patients, the observation of symptoms, the treatment of surgical emergencies, the use of instruments, the application of dressings, and other surgical details is given by the Clinical Tutor (Dr J. Wheeler Dowden) attached to the Chair. Such instruction is *free* to all Students attending the Course.

Text-Books.—Any of the recent standard works on Surgery. Students are also advised to study the best works (old and new) on the special subjects of Practical Surgery.

In connection with this class it is to be noted that under the New Regulations—(1.) Nine months' attendance on Lectures is required, and it is advised that at least six months of this be continuous. (2.) That attendance at the *Ward* Cliniques is compulsory and forms part of the Course. (3.) Students must also produce a certificate that they have acted as Dresser or Clerk in Surgical Wards for six months.

XIV. CLINICAL MEDICINE.

PROFESSORS SIR THOMAS GRAINGER STEWART, FRASER, GREENFIELD, AND (FOR DISEASES OF WOMEN), SIMPSON.

This Course, consisting of Clinical Lectures and Instruction in the University wards of the Royal Infirmary, is conducted

conjointly by the Clinical Professors—all being on duty both in the Winter and Summer Sessions, the Professor of Midwifery giving lectures and demonstrations on Gynecology on certain days.

The Course consists of:—1. Practical Instruction on three days a week at the bedside. 2. Critical Expositions and Discussions of cases in the lecture-room on two days a week.

Every facility is afforded to students to act as Clinical Clerks, and those are preferred who have had a course of tutorial instruction. At the close of each Summer Session, six gentlemen, who have been members of the Class, are appointed Resident Physicians in the Clinical Wards for the following Winter and Summer Sessions.

Clinical Tutorial Class.

Practical instruction in the Methods of Physical Examination is given to the Class by the University Clinical Tutors.

Junior Students are strongly advised to take this course of instruction along with their first course of Clinical Medicine.

CLINICAL INSTRUCTION ON DISEASE IN CHILDREN.

JAMES CARMICHAEL, M.D., JOHN PLAYFAIR, M.D., *Lecturers*, with the Ordinary and Extra Physicians.

Three Courses, will be conducted annually, two in the Winter, one before, the other after Christmas, and one in the Summer Session.

The instruction is given in the wards of the Royal Hospital for Sick Children, and in the out-patient department. Special attention is directed to Hygiene, Diagnosis, and Treatment during the period of Infancy.

Works of reference.—Keating's "Cyclopædia of the Diseases of Children," Henoch, Eustace Smith, or Holt on "Disease in Children."

Text-Book.—Carmichael's "Manual of Disease in Children."

Graduation in Medicine and Surgery.

A—REGULATIONS APPLICABLE TO ALL WHO BEGIN MEDICAL STUDIES AFTER 1ST OCTOBER 1892.

For those who began Medical Studies before 1st October 1892, see Regulations B, page 378.

I. Four Degrees in Medicine and Surgery are conferred by the University of Edinburgh, viz., Bachelor of Medicine (M.B.), Bachelor of Surgery (Ch.B.), Doctor of Medicine (M.D.), and Master of Surgery (Ch.M.). The Degree of Ch.B. is not conferred on any person who does not at the same time obtain the Degree of M.B., and the Degree of M.B. is not conferred on any person who does not at the same time obtain the Degree of Ch.B.

[These Degrees admit to the Medical Register. They qualify for Practice throughout Her Majesty's dominions, and for admission to the Military, Naval, and other Public Medical Services in the United Kingdom.]

II. Subject to Regulations to be made from time to time by the University Court, the University may also confer Diplomas in Special Branches of Medical and Surgical Practice on Graduates of the University in Medicine and Surgery.

PRELIMINARY EXAMINATION.[1]

III. Before commencing medical studies, each student must pass a Preliminary Examination in (1) English, (2) Latin, (3) Elementary Mathematics, and (4) Greek or French or German: Provided always that, in the case of a candidate whose native language is not English, an examination in the native language of the candidate[2] may be substituted for one in either French or German, and an examination in any other classical language[2] for one in Latin or Greek.

IV. The extent and standard of the Preliminary Examination is determined by the Joint Board of Examiners constituted under Ordinance, No. 13 [General, No. 8 Regulations as to Examinations], in accordance with the terms of that Ordinance.

V. The Preliminary Examination is conducted in accordance with the provisions of Ordinance No. 13 [General, No. 8 Regulations as to

[1] See also pages 432-436.

[2] Candidates who propose to be examined in a language other than those above-named are required to give intimation thereof before 1st February or 1st July for the Examinations in spring and autumn respectively.

Examinations];—and, subject to the provisions of the immediately succeeding section hereof, a Candidate shall be obliged to pass in all the required subjects at one or not more than two Examinations; provided that he may offer himself for re-examination as often as may be necessary to satisfy this condition.

VI. A Degree in Arts, or in Science (not being a Degree *honoris causa tantum*), in any of the Universities of the United Kingdom, or in any Colonial [1] or Foreign University specially recognised for the purpose by the University Court, exempts from the Preliminary Examination; and the Joint Board of Examiners appointed under the provisions of Ordinance, General, No. 8 [Regulations as to Examinations], has power to determine what examinations, other than those for the degrees hereinbefore mentioned, shall be accepted either in whole or in part in place of the Preliminary Examination.[2]

PROFESSIONAL EDUCATION.[3]

VII. Candidates are admitted to the Degrees of M.B. and Ch.B. only after they have fulfilled the following conditions:—

1. The Candidate must have been engaged in Medical study for at least five years.
2. In each of the first four years the Candidate must have attended at least two courses of instruction, in one or more of the subjects of study specified in sub-section 4 hereof—each Course extending over a session of not less than five months, either continuous or divided into two terms; or, alternatively, one such Course, along with two Courses, each extending over a session of not less than two and a half months.
3. During the fifth or final year the Candidate must be engaged in Clinical study for at least nine months at the Royal Infirmary, Edinburgh, or at one or more of such Public Hospitals or Dispensaries, British or Foreign, as may be recognised for the purpose by the University Court.
4. The Candidate must, during his Curriculum, have attended a Course or Courses of instruction in each of the following subjects of study, including such Examinations as may be prescribed in the various Classes, viz.:—

(1.) ANATOMY, ... During a Course of not less than Five Months.

[1] University recognised in terms of this section: Princeton, New Jersey, U.S.A.

[2] See page 433.

[3] No Course of Lectures will be allowed to qualify unless the Lecturer certifies that it has embraced at least 100 Lectures, or 50 Lectures, in conformity with the requirements of this section. Three Months' Courses on Materia Medica, Pathology, and Midwifery do not qualify unless, in the case of Midwifery, they conform to the Regulation on page 349. Apprenticeship, Dispensary or Hospital Practice, Practical Midwifery, and Vaccination, &c., are not reckoned as *Classes* in making up an *Annus Medicus*.

(2.) PRACTICAL ANATOMY, ...	During two Courses of not less than Five Months each.[1]
(3.) CHEMISTRY, ...	During Courses of not less than Five Months.
(4.) MATERIA MEDICA and THERAPEUTICS, .	
(5.) PHYSIOLOGY or INSTITUTES OF MEDICINE,	
(6.) PRACTICE OF MEDICINE, . . .	
(7.) SURGERY, ...	
(8.) MIDWIFERY, and the DISEASES peculiar to WOMEN and INFANTS. Two Courses of Midwifery, of Three Months each, provided different departments of Obstetric Medicine be taught in each of the Courses, are reckoned equivalent to a Course of not less than Five Months, ...	
(9.) PATHOLOGY, ...	
(10.) PRACTICAL CHEMISTRY, . . .	During Courses of not less than Two and a half Months.
(11.) PHYSICS (including the DYNAMICS OF SOLIDS, LIQUIDS, and GASES, and the RUDIMENTS OF SOUND, HEAT, LIGHT, and ELECTRICITY), ...	
(12.) ELEMENTARY BOTANY, ...	
(13.) ELEMENTARY ZOOLOGY, . . .	
(14.) PRACTICAL PHYSIOLOGY, . . .	
(15.) PRACTICAL PATHOLOGY, . . .	
(16.) MEDICAL JURISPRUDENCE and PUBLIC HEALTH, ...	

Provided always in so far as regards the University of Edinburgh that—

(*a*) It is the duty of the Senatus to determine from time to time the number of meetings of which such Courses shall consist, and in what cases two half Courses shall be deemed equivalent to a full Course; and to report the determination to the University Court for its approval.

(*b*) It is the duty of the Professors and Lecturers to submit to the Senatus annually at the end of the Winter Session a scheme specifying what proportion of the Courses shall be devoted to Lectures, Practical Demonstrations, Examinations, and Tutorial Work respectively. The Senatus must transmit such scheme, with such observations as it may think fit to make thereon, to the University Court for its approval.

(*c*) The University Court will not grant or continue recognition to any institutions or teachers unless it is satisfied

[1] Certificates of attendance on Practical Anatomy must express not only the number of months engaged in dissection, but the names of the parts dissected, and the degree of care with which the dissections have been made. Students are recommended not to appear for Examination in Anatomy, with a view to a Degree, until they have dissected the human body at least once.

that their Courses of Instruction are equivalent to the Courses sanctioned in the Universities of Scotland.

5. The Candidate must have attended for at least three years the Medical and Surgical Practice either of the Royal Infirmary, Edinburgh, or of a General Hospital elsewhere, which accommodates not fewer than eighty patients, and possesses a distinct staff of Physicians and Surgeons.
6. The Candidate must have attended Clinical Surgery[1] during a Course or Courses extending over not less than nine months. These Courses may be conducted by the Professor of Clinical Surgery, or by Professors or Lecturers appointed for the purpose by the University Court, or by the Ordinary Surgeons of the Royal Infirmary, Edinburgh, or of a General Hospital defined and recognised as hereinbefore provided, and must consist of regular instruction at the bedside, along with Clinical Lectures.
7. The Candidate must have attended Clinical Medicine[1] during a Course or Courses extending over not less than nine months. These Courses may be conducted by Professors of the University, or by Lecturers appointed for the purpose by the University Court, or by the Ordinary Physicians of the Royal Infirmary, Edinburgh, or of a General Hospital defined and recognised as hereinbefore provided, and must consist of regular instruction at the bedside, along with Clinical Lectures.
8. The Candidate must have attended a course of instruction in Mental Diseases given by the University Lecturer, or by a recognised Teacher, consisting of not less than six Class-room meetings for lectures and demonstrations and ten meetings in the Wards of a recognised Asylum for the Insane.[2]
9. The Candidate must have attended a Course of twenty-five meetings on Practical Pharmacy in a University or recognised School of Medicine, or have dispensed drugs for a period of three months in an Hospital or Dispensary, or the establishment of any chemist and druggist or pharmaceutical chemist of Great Britain, or any pharmaceutical chemist of Ireland, who is registered in the Books of the Pharmaceutical Society of Great Britain or of the Pharmaceutical Society of Ireland respectively.
10. The Candidate must have attended, for at least six months, by apprenticeship or otherwise, the out-practice of an Hospital, or the practice of a Dispensary, or of a Physician or Surgeon, or of a Member of the London or Dublin Society of Apothecaries. He must have acted as Clerk[3] in the Medical and Dresser[3] in the

[1] Only open to Students holding the Hospital Ticket. Certificates of attendance must be countersigned by the Treasurer of the Royal Infirmary.

[2] Must be attended before the Candidate enters for the Final Examination.

[3] Six months necessary. Students desiring to serve as Clerks in the University Wards are required to show their Infirmary tickets, and to give evidence of enrolment in the University Class of Clinical Medicine for the current session. Holders of perpetual tickets must re-enter their names in the roll book of the class, and exhibit their former class tickets, at the commencement of each session. See also footnote 1.

Surgical Wards of a Public Hospital; and he is further required to attend:—*A.* (1) Post-Mortem Examinations[1] in a recognised Hospital for a period of at least three months, during which practical instruction is given in the methods of making Post-Mortem Examinations, and in framing Reports.[2] (2) A course of Clinical instruction in infective Fevers, given at not less than twelve meetings in the Wards of a recognised Hospital where Clinical instruction is given on cases of Infectious Diseases.[2] (3) A course of instruction in Diseases of the Eye, given by the University Lecturer, or by a recognised Teacher, at not less than twelve Class-room meetings and twelve meetings for Clinical instruction in the Wards of a recognised Hospital, or in the Wards of a Hospital, and in a Dispensary, both recognised for the purpose. The Course to include efficient practical instruction in the methods of Examining the Eye.[2] (4) A Course of Operative Surgery, conducted by the Professor of Surgery in the University, or by a recognised Teacher. *B.* Every Candidate shall also be required to attend any one of the two following courses:—(1) A course of Clinical instruction in the Diseases of Children, given by the University Lecturers, and by recognised Teachers in the Edinburgh Royal Hospital for Sick Children, or by a recognised Teacher or Teachers in a Hospital recognised for the purpose, which shall extend over a period of at least six weeks, and in addition to the opportunities for Surgical and for other Medical instruction afforded by the Hospital, shall include Clinical instruction in the Medical diseases of children, consisting of not less than four Class-room lectures, ten meetings for Clinical instruction in the Medical Wards, and four meetings in the Out-patient Department of the Hospital,[1][2] together with attendance at Post-Mortem Examinations.[1][2] (2) A course of instruction in diseases of the Larynx, Ear, and Nose, given by a University Lecturer,[2] or by a recognised Teacher, at not less than six Class-room meetings, and twelve meetings for Clinical instruction in the Wards of a recognised Hospital, or in the Wards of a Hospital and in a Dispensary, both recognised for the purpose.[1][2]

II. The Candidate must have attended, under the superintendence of a registered Medical Practitioner, twelve cases of labour, or such additional number as the Senatus, with the sanction of the University Court, may from time to time determine; or have attended for three months the practice of a Lying-in Hospital, or of the Maternity Department of a General Hospital or other Public Charitable Institution, and have conducted personally six, or such an additional number of cases of labour as the Senatus, with the approval of the University Court, may from time to time determine.

[1] See footnote 1, page 350.

[2] See footnote 2, page 350.

12. The Candidate must have been properly instructed in Vaccination at a Public Vaccination Station, by a Public Vaccinator, authorised by the proper Government Authority to grant Certificates of Proficiency in Vaccination.[1]
13. No Candidate for a degree will be deemed to have attended a class as part of the Curriculum necessary for that degree who does not present a certificate bearing not only that he has given regular attendance, but also that he has duly performed the work of the class.

VIII. With respect to the Places and Institutions at which the studies of the Candidate may be prosecuted, the following Regulations have effect:—

1. Two of the five years of medical study must be spent in the University of Edinburgh, each year of study including always the attendances specified in section VII., sub-section 2.
2. The remaining three years may be spent in any University of the United Kingdom, or in any Indian, Colonial, or Foreign University recognised for the purpose by the Universty Court, or in such Medical Schools or under such Teachers as may be recognised for the purpose by the University Court, each year of study during the first four years including always the attendances specified in section VII., sub-section 2.[2]
3. Of the subjects of study specified in section VII., sub-section 4, not less than eight must be taken in the University of Edinburgh, or (subject always to the provisions as to attendance contained in the immediately preceding sub-sections) in some other University of the United Kingdom, or in some Foreign or Colonial University entitled to confer the Degree of Doctor of Medicine, recognised for the purpose by the University Court, or in a College incorporated with, or affiliated to a University, entitled to confer the Degree of Doctor of Medicine, recognised for the purpose by the University Court: Provided always that where in any of said subjects of study two or more Courses are required, the taking of one of those Courses will constitute a taking of the subject for the purpose of this sub-section.

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[1] The Candidate must, when he enters for the Final Examination, produce a certificate from a Vaccine Department in an Hospital, Dispensary, or other public Institution recognised by the Local Government Board for instruction in Vaccination, to the effect that he has himself performed the operation successfully under the teacher's inspection; that he is familiar with the different stages of the vaccine vesicle, and with the method of preserving lymph, and is thoroughly informed in every necessary part of the subject. The recognised Vaccine Departments in Edinburgh are the Royal Public Dispensary, 21 West Richmond Street—*Vaccinator*, Dr Husband; the Western Dispensary, 90 Fountainbridge—*Vaccinator*, Dr J. B. Buist; and the New Town Dispensary, 17 Thistle Street—*Vaccinator*, Dr Cadell.

[2] Universities, &c., recognised under this sub-section.—University College, Dundee, and Royal Infirmary, Dundee, and all Indian, Colonial, or foreign Universities whose Courses of Instruction were accepted for purposes of graduation in Medicine under the old Ordinances.

4. The remainder of such subjects of study may (subject always as aforesaid) be taken in such Medical Schools or under such Teachers as may be recognised for the purpose by the University Court.
5. All Candidates, not Matriculated Students of the University, availing themselves of the permission to attend the Lectures of Extra-Academical Teachers in Edinburgh, must, at the commencement of each year of such attendance, enrol their names in a book to be kept in the University for that purpose, paying a Fee of the same amount as the Matriculation Fee paid by Students of the University, and having, in respect of such payment, a right to the use of the Library of the University.
6. The Fee for attendance, for purposes of graduation, on the Courses of instruction of recognised Extra-Academical Teachers in Edinburgh, must be not less than the amount exigible for the corresponding Courses in the University.

   [*The fee must be paid at the commencement of the Course, and the Certificate must state the amount of the fee paid.*]
7. The University Court will not recognise as qualifying for examination in any of the subjects specified in section VII., sub-section 4, the class of any teacher who is at the time a teacher of more than one of the said subjects, except in those cases where Professors in the University are at liberty to teach the two subjects: Provided always that a Professor or other Teacher in any endowed public College or Institution, who, by the terms of his appointment, is required to teach more than one subject of Medical Study therein, may be recognised under sub-section 2 of this section as a Teacher of any one of the subjects which he teaches.
8. A Teacher, attendance on whose course of instruction, before the date of the approval of these Regulations by Her Majesty in Council, had been recognised for the purposes of graduation in the University, is not required to obtain a new recognition from the University Court; and attendance on the course of instruction of every such Teacher may continue to be recognised as heretofore.
9. It is in the power of the University Court, if it sees cause, at any time to withdraw or suspend any recognition which it may have granted.

IX. In the University of Edinburgh it is the duty of the Professors of the subjects specified in section VII., sub-section 4 hereof (except Practical Anatomy and such other subjects as the Senatus, with the approval of the University Court, may from time to time determine), so to conduct the Courses that Students may receive instruction sufficient for graduation in any one of the said subjects by attendance on one Course of five or six months, or of two and a half or three months as the case may be.

X. If any Candidate, before presenting himself for his Prelimi-

nary Examination, has attended in any University of the United Kingdom, or in any University or Institution specially approved, or under any Teacher specially recognised for the purpose by the University Court, a Course or Courses of instruction in Physics, Chemistry, Botany, or Zoology, equivalent in the judgment of the Senatus to the qualifying Course in the same subject in the University of Edinburgh, such attendance will (notwithstanding anything hereinbefore stipulated) be held as entitling him to be examined in these subjects; and if the Candidate has attended such Course or Courses in each of the said subjects, he will be held to have completed his first year of Medical Study: Provided always that the evidence of such attendance at such equivalent Course or Courses must be presented to the Senatus at the time when the Candidate presents himself for his Preliminary Examination; and the Senatus will, if satisfied, grant a certificate to that effect.

By a Supplementary Ordinance of the Commissioners, the provisions of this section shall not have effect except where the University Court shall allow the application after a report by the Senatus, setting forth special grounds therefor.

PROFESSIONAL EXAMINATION FOR M.B. AND Ch.B.

XI. Each Candidate is examined, both in writing and orally, and also clinically where the nature of the subject admits, in the following divisions, viz.:—*First*, in Botany, Zoology, Physics, and Chemistry; *Second*, in Anatomy, Physiology, and Materia Medica and Therapeutics; *Third*, in Pathology, and Medical Jurisprudence and Public Health; *Fourth*, in Surgery and Clinical Surgery, Practice of Medicine and Clinical Medicine, and Midwifery.

In subjects which admit of practical instruction, the examination will be such as to test the practical acquirements of the Candidate.

If a Candidate for the Degrees of M.B. and Ch.B. have completed, in a University of the United Kingdom, a course of study and passed an examination in Botany, Zoology, Physics, or Chemistry qualifying for a Degree in Science or in Arts, he shall be held to have passed the examinations in such subject or subjects.

If a Candidate have obtained a Degree in Science or in Arts in any University other than a University of the United Kingdom, granted in either case after a course of study and an examination in Botany, Zoology, Physics, or Chemistry, it shall be in the power of the University Court to exempt such Candidate from the examinations in such subject or subjects; provided that the course of study and the standard of examination in each case are satisfactory in the judgment of the Senatus Academicus.[1]

XII. Candidates who profess themselves ready to submit to an examination in the subjects comprised in the first division, viz., Botany,

[1] The Courses of study, and the Examinations of the University of New Zealand are recognised under this section.

Zoology, Physics, and Chemistry, may be admitted to examination in all or any two of these subjects at any examination held after they have attended a full Course in each of the subjects professed.

XIII. Candidates who have passed their examinations in the subjects comprised in the first division may be admitted to examination in the second division at the end of the third winter session.

Provided that Candidates who so desire may postpone their examination in Materia Medica and Therapeutics until the close of the summer session following.

XIV. Candidates who have passed their examinations in the subjects comprised in the first and second divisions may be admitted to examination in the third division at the end of the fourth winter session.

Provided that Candidates who so desire may postpone their examination in Medical Jurisprudence and Public Health until the close of the summer session following.

XV. Candidates who have passed their examinations in the subjects comprised in the first, second, and third divisions may be admitted to examination in the fourth or final division, when they have completed the fifth year of study.

XVI. If any Candidate at these examinations be found unqualified in one or more subjects, he will not again be admitted to examination unless he has pursued his medical studies for such time, and subject to such conditions, as the Faculty of Medicine may prescribe.[1]

XVII. If any Candidate at these examinations be found to have passed in one or more subjects with sufficient merit, he will not be liable to re-examination in such subject or subjects, although he may have been found unqualified in a subject or subjects comprised in the same division as hereinbefore specified.

XVIII. Every Candidate must deliver,[2] on or before such day as the Senatus may from time to time determine, to the Dean of the Faculty of Medicine, a declaration, in his own handwriting, that he has completed his twenty-first year, or that he will have completed it on or before the day of graduation, and that he will not be, on the day of graduation, under articles of apprenticeship to any surgeon or other master.

XIX. After the Candidate has satisfied the Examiners, the Dean of the Faculty of Medicine lays the proceedings before the Senatus, by whose authority the Candidate will be admitted, on such day as the Senatus may from time to time appoint, to the Degrees of M.B. and Ch.B., on payment of the required fees.

XX. Candidates for graduation must produce evidence of their

[1] Satisfactory Certificates must be produced when Candidates re-enter for Examination, and the fees paid to Extra-Academical teachers in Edinburgh for re-attendances must be of the same amount as those payable for the corresponding classes in the University, and the Certificates of attendance must show the amount of the fees paid.

[2] On or before the date for lodging Certificates, &c., for the fourth division of the Examinations. See page 373. A declaration is appended to the Schedule for the Final Examination, which must be attested and signed before the Schedule is lodged.

having conformed to the Regulations which were in force at the time they commenced their Medical Studies.

PROFESSIONAL EXAMINATION FOR M.D.[1]

XXI. 1. Subject to the conditions hereinafter specified, the Degree of M.D. is conferred on any Candidate who has obtained the Degrees of M.B. and Ch.B., and is of the age of twenty-four years or upwards, and has produced a certificate of having been engaged, subsequently to having received the Degrees of M.B. and Ch.B., for at least one year in attendance in the Medical Wards of an Hospital, or in scientific work bearing directly on his profession, such as is conducted in the Research Laboratories of the University, or in the Military or Naval Medical Services, or for at least two years in Practice other than Practice restricted to Surgery.

2. Each Candidate for the Degree of M.D. is required to pass an examination in Clinical Medicine and in such of its special departments as may from time to time be determined; and he may present himself for examination in Clinical Medicine at any period of examination subsequent to one year after he has received the Degrees of Bachelor of Medicine and Bachelor of Surgery.

This Examination in Clinical Medicine for each Candidate consists of a written Report and Commentary, with any oral questions that may be considered desirable, upon at least three Medical cases. In the selection of the cases, special regard should be given to the opportunities they afford for testing the Candidate, not only in the ordinary methods of clinical investigation, but also in the more advanced methods requiring practical knowledge in the applications of the ophthalmoscope and laryngoscope, in the chemical and microscopical examination of excreta, the quantitative determination and microscopic characters of the chief constituents of blood possessing clinical importance, the recording by instruments of the condition of the circulation, the applications of electricity, &c. : Provided always that one of the three cases on which a Candidate shall be examined may be the case of a patient suffering from a Gynecological or Mental Disease, or Disease of Childhood, if the Candidate on entering his name for the Examination declare a wish to this effect. So far as possible, the Examination in these Departments will be on a standard equal to that of the Examination on the Medical cases.

1 Candidates, settled for a period of years in foreign parts, who have complied with all the regulations for the Degrees of M.D. and Ch.M., but who cannot appear personally to receive the Degree, may, on satisfying the Senatus to that effect, by production of sufficient official testimonials, have the Degree conferred on them in absence.

3. Each Candidate for the Degree of M.D. must submit for the approval of the Faculty of Medicine a Thesis, on any branch of knowledge comprised in the second, third, or fourth examinations for the Degrees of M.B. and Ch.B., which he may have made a subject of study after having received those Degrees, excepting subjects which are exclusively Surgical; and the Thesis, accompanied by a declaration signed by the Candidate, that the work has been done and the Thesis composed by himself, must be lodged with the Dean of the Faculty of Medicine on or before a date to be fixed by the Senatus.[1]
4. A Bachelor of Medicine and Bachelor of Surgery, who produces to the Senatus satisfactory evidence of his intention of entering within twelve months after obtaining such degrees on the practice of his profession in a British Possession or Colony, or in a foreign Country, may, under Regulations to be framed by the Senatus, be admitted to the examination in Clinical Medicine at any period of examination after he has received such Degrees; but the Degree of M.D. will not be conferred on him unless he produces a certificate that, subsequently to having received the Degrees of M.B. and Ch.B., he has been engaged for at least one year in attendance in the Medical Wards of an Hospital, or in scientific work bearing directly on his profession, such as is conducted in the Research Laboratories of the University, or in the Naval or Military Medical Services, or for at least two years in Practice which has not been exclusively surgical, and unless his Thesis, in the judgment of the Faculty of Medicine, is of exceptional merit.

Bachelors of Medicine and Masters of Surgery of the University of Edinburgh, who have graduated under the regulations in force before 5th August 1892, may proceed to the Degree of Doctor of Medicine under the provisions of this section in the same manner as if they had graduated under the new Regulations.

PROFESSIONAL EXAMINATION FOR CH.M.[2]

XXII. 1. Subject to the conditions hereinafter specified the Degree of Ch.M. will be conferred on any Candidate who has obtained the Degrees of M.B. and Ch.B. of the University, and is of the age of twenty-four years or upwards, and has produced a certificate of having been engaged, subsequently to his having received the Degrees of M.B. and Ch.B., for at least one year in attendance in the Surgical Wards of an Hospital, or in

[1] Candidates are required to write their Theses on faint lined paper, 11 in. by 8½ in. with margins 1½ in. at each side. The Thesis is to be written on one side of each leaf only, and it must be lodged on or before 30th April of the year in which the Candidate proposes to graduate. See also footnote, page 373.

[2] See footnote 1, page 356.

scientific work bearing directly on his profession, such as is conducted in the Research Laboratories of the University, or in the Military or Naval Medical Services, or for at least two years in practice other than practice restricted to Medicine.

2. Each Candidate for the Degree of Ch.M. is required to pass an examination in the following subjects :—Surgical Anatomy, Operations upon the dead body, and Clinical Surgery, and in such of the special departments of Clinical Surgery as may from time to time be determined ; and he may present himself for examination in these subjects at any period of examination subsequent to one year after he has received the Degrees of M.B. and Ch.B.

   The Examination in Clinical Surgery for the Degree of Master of Surgery should for each Candidate consist of a written Report and Commentary, with any oral questions that may be considered desirable, on at least three Surgical cases : Provided that one of the three Surgical cases on which a Candidate shall be examined may be the case of a patient suffering from an Eye, Throat, Ear, or Gynecological Disease, if the Candidate on entering his name for the Examination declare a wish to this effect. So far as possible, the Examination in these Departments shall be on a standard equal to that of the Examination on the Surgical cases. The Candidates shall also be examined in Surgical Anatomy and Operations upon the dead body.

3. Each Candidate for the Degree of Ch.M. must submit, for the approval of the Faculty of Medicine, a Thesis on any branch of knowledge comprised in the second, third, or fourth Examinations for the Degrees of M.B. and Ch.B., which he may have made a subject of study after having received those Degrees, excepting subjects that are exclusively medical ; and the Thesis, accompanied by a declaration signed by the Candidate that the work has been done and the Thesis composed by himself, must be lodged with the Dean of the Faculty of Medicine on or before a date to be fixed by the Senatus.[1]

4. A Bachelor of Medicine and Bachelor of Surgery who produces to the Senatus satisfactory evidence of his intention of entering within twelve months after obtaining such Degrees on the practice of his profession in a British Possession or Colony, or in a foreign Country, may, under Regulations to be framed by the Senatus, be admitted to examination in the subjects specified in sub-section 2 of this section at any period of examination after he has received such Degrees ; but the Degree of Ch.M. shall not be conferred on him unless he produces a certificate that, subsequently to having received the Degrees of M.B. and Ch.B., he has been engaged for at least one year in attendance in the Surgical

[1] See footnotes 1, pages 356 and 357.

Wards of an Hospital, or in scientific work bearing directly on his profession, such as is conducted in the Research Laboratories of the University, or in the Naval or Military Medical Services, or for at least two years in Practice which has not been exclusively medical, and unless his Thesis in the judgment of the Faculty of Medicine is of exceptional merit.

REGULATIONS FOR GRADUATION OF WOMEN.

1. It shall be in the power of the University Court to admit Women to graduation.

2. The conditions for graduation shall be the same for women as for men, subject to the following modifications, which shall have effect until provision is made for the instruction of women in all the subjects qualifying for graduation, in which provision is made for the instruction of men.

3. Section VIII. of Regulations for Degrees in Medicine shall not be applicable to the graduation of women in Medicine.

So long as within the Faculty provision is not made for the instruction of women in any subject qualifying for graduation in which provision is made for the instruction of men, it shall be in the power of the University Court to admit to graduation women who have received the requisite instruction in that subject in any University of the United Kingdom, or in any Indian, Colonial, or Foreign University recognised for the purpose by the University Court, or in such Medical Schools or under such teachers as may be recognised for the purpose by the University Court : Provided always that every Candidate for graduation shall produce evidence of having satisfied the conditions laid down in the Regulations for Degrees in Medicine with respect to the Preliminary Examination, and shall be examined in all the subjects necessary for graduation by the Examiners of the University.

4. So soon as within the University provision is made for the instruction of women in all subjects qualifying for graduation in which provision is made for the instruction of men, the conditions for the graduation of women shall be the same as the conditions for the graduation of men.

5. In the case of women who began their studies before these Regulations came into operation, it shall be competent to the University Court to admit to graduation in Medicine women who may complete their medical studies in accordance either with the Regulations for graduation hitherto in force, or with the present Regulations ; declaring that as regards their studies prior to the date at which these Regulations came into operation (1st October 1892), such women may have obtained their instruction in any classes which the University Court may accept for the purpose, and providing that before beginning their medical studies they shall have passed a Preliminary Examination which the University Court shall consider to have been adequate.

6. Women who attend classes in the University must matriculate, pay-

ing a fee of the same amount as that exigible for other students. Women, who are Candidates for graduation but not matriculated students, and who may attend classes in Edinburgh under the provisions above set forth, must, at the commencement of each year of such attendance, enrol their names in a book to be kept in the University for that purpose, paying a Fee of the same amount as the Matriculation Fee paid by students of the University.

Additional Regulations of the University Court.

When granting recognition to Medical Schools or Teachers for the medical instruction of women, the University Court requires that the classes shall not be mixed classes, except on special cause shown.

The University Court have recognised the Edinburgh School of Medicine for Women, Surgeon Square, Edinburgh, and the Medical College for Women, 30 Chambers Street, Edinburgh, as Medical Schools whose courses of instruction qualify for graduation in Medicine, subject to the following conditions:—Provided 1. That every Candidate for graduation shall produce evidence of having satisfied the conditions with respect to the Preliminary Examination and Registration as Medical Students, and shall be examined in all the subjects necessary for graduation by the Examiners of the University in which she takes her degree. 2. That the fees charged for classes or courses of instruction qualifying for graduation shall not be less than the fees for the corresponding courses of instruction within the University. 3. That the students attending either of these Schools shall be free to take a class or classes separately in either the one or the other of the Schools. 4. That all students not matriculated students of the University attending these Schools for purposes of graduation must, at the commencement of each year of such attendance, enter their names in a book to be kept in the University for that purpose, paying a fee of the same amount as the matriculation fee paid by students of the University, and having, in respect of such payment, a right to the use of the Library of the University. 5. That each of the aforesaid Schools make application annually to the University Court for a continuation of the recognition thus granted, and at the same time report to the Court on the administrative arrangements and discipline of the School. 6. That schedules of Class Returns, to be furnished by the Court, and giving the designation of the class or course, number of students, number of meetings, &c., be filled up by each of the teachers of the qualifying classes or courses of instruction in the aforesaid Schools, as in the case of the recognised Lecturers on Medicine, and forwarded to the Secretary of the Court not later than 1st July in each year. 7. That all advertisements referring to the recognition of the aforesaid Schools, or to the qualifying classes or courses of instruction to be given at any time in connection with these Schools, shall, before publication, be submitted to the Secretary of Senatus of the University, and receive his approval.

Regulations for Special Study and Research, and for the Appointment of Research Fellows.

I. The Senatus Academicus, with the approval of the University Court, may make regulations under which Graduates of Scottish Universities or of other Universities recognised by the University Court for the purposes hereof, or other persons who have given satisfactory proof of general education and of fitness to engage in some special study or research, may be admitted to prosecute such study or research in the University.

II. It is the duty of the Senatus (1) To receive and decide upon all applications for admission to prosecute special study or research. (2) To prepare a list of all persons so admitted (hereinafter referred to as Research Students). (3) To make regulations for the supervision of their work. (4) To satisfy themselves from time to time that the Research Students are carrying on their work in the University in a satisfactory manner. (5) To suspend or exclude from any course any student whose conduct or progress is unsatisfactory.

III. Every applicant for admission must send in to the Senatus a written application stating any degree or other distinction which he has already obtained, the line of study or research which he wishes to prosecute and the probable period of its duration, together with evidence as to his character, capacity, and general qualifications.

IV. Any application for admission shall be in the first instance referred by the Senatus to the appropriate Faculty, or to a Committee appointed by the Senatus; one member of the Committee shall always be a Professor or Lecturer within whose department the proposed line of study or research falls. No applicant shall be recommended by the Faculty or the Committee who has not satisfied them by examination or otherwise that he is qualified to prosecute the proposed line of study or research, and further—

(*a*) That his proposed line of study or research is a fit and proper one; (*b*) That he possesses a good general education; (*c*) That he is of good character; (*d*) That he proposes to prosecute his studies or research during a period to be approved by the Senatus Academicus.

The Faculty or the Committee shall make a report to the Senatus upon each application. It shall also be their duty, subject to the regulations of the Senatus, to provide for the supervision of the Research Student's work, and to report at least once a year to the Senatus as to his progress and conduct. The Senatus shall then determine whether he shall remain a Research Student.

V. Every Research Student shall be required to matriculate each year, paying the ordinary fee.

VI. Research Students shall have access to and the use of the University Laboratories and Museums, under such conditions as to payment and otherwise as the University Court, after consultation with the Senatus, may determine.

VII. The title of Research Fellow may be conferred by the Senatus, with the approval of the University Court, on Research Students who have shown special distinction. Such title shall not of itself confer any right to stipend, but it shall be in the power of the University Court to provide a stipend of such amount and for such period as it may think fit to any Research Fellow under the powers of Section XI., Sub-section 8, of Ordinance 27.

VIII. (1) The Research Fellows shall be appointed as aforesaid after consideration of the report or reports submitted in terms of Section IV. hereof. (2) The title of Research Fellow may be conferred either at the commencement of the Research Student's course of study or research, or at any time during its progress, as the Senatus Academicus may determine. (3) Research Fellows shall retain their title and stipend, if any, for the period during which they are engaged in special study or research in the University, and no longer. (4) Research Students who have been appointed Research Fellows shall continue to be subject to the conditions above prescribed as to the supervision of their work and the reports to be made thereon.

IX. Nothing herein contained shall prejudice the right of Research Students to such Fellowships, Scholarships, or Prizes as may be open to them by Ordinance or Deed of Foundation.

X. The University Court may, subject to the provisions of Section XI., Sub-section 8, of Ordinance No. 27, Edinburgh No. 6, provide such sums as it may think fit in aid of the expenses of Special Study or Research.

Regulations for the Degree of D.Sc.

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I. Research Students within the meaning of the Regulations for the Encouragement of Special Study and Research and for the appointment of Research Fellows, may offer themselves for the degree of D.Sc. of the University in which they have prosecuted some special study or research under those Regulations, although they have not taken the degree of B.Sc. or the degree of M.A. with honours in that University; provided—

(1) That they hold the degree of B.Sc. or M.B. of a Scottish or any recognised University, or a degree of any such University, which the Senatus shall hold to be equivalent to the degree of B.Sc. or to the degree of M.A. with first or second class honours in Mathematics and Natural Philosophy; provided that Candidates who hold any such degree from a University outside the United Kingdom may be required, if the Senatus think fit, before beginning their course as Research Students with a view to the degree of D.Sc., to pass an examination equivalent to an Honours or to a Final

Science examination in a group of subjects cognate to their line of work as Research Students.

(2) That they have spent not less than two winter sessions or an equivalent period as Research Students in the University granting the degree, and that they produce evidence of satisfactory progress in the special study or research undertaken by them during that period.

(3) That a period of not less than five years shall have elapsed from the date of the graduation required in sub-section (1) of this section.

II. All Candidates for the degree of D.Sc. shall present a thesis or a published memoir or work, to be approved by the Senatus on the recommendation of the Faculty of Science; provided that, if required by the Senatus, the Candidate shall also be bound to pass such an examination conducted orally or practically, or by written papers, or by all of these methods, on the subjects of his special study or of his thesis, as may from time to time be determined. The thesis shall be a record of original research undertaken by the Candidate, and shall be accompanied by a declaration signed by him that the work has been done and the thesis composed by himself. [The Thesis must be lodged and the fees paid on or before 1st December.]

III. Notwithstanding and in supplement of the provisions of Regulations as to Examinations, sections XIV. and XV., the Senatus shall appoint such Professors or Lecturers as it may think suitable to conduct the examination of Candidates who may offer themselves under the provisions of the Regulations for Degrees in Science, or of these Regulations for the Degree of D.Sc., and the University Court shall, after consultation with the Senatus Academicus, appoint an additional Examiner to act along with them. Such additional Examiner shall be a person of recognised eminence in the subject of the thesis, or memoir, or work which is to be submitted for approval. The result of the examination shall be reported to the appropriate Faculty or Committee of Senatus.

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V. The degree of D.Sc. shall in no case be conferred on persons who have not satisfied the conditions hereinbefore set forth, and shall not be conferred *honoris causa tantum*.

VI. The fee for the Examination for the Degree of D.Sc. is ten guineas, payable when the Candidate lodges his thesis. Fee for re-examination, £5, 5s.

DATES OF ENTERING FOR PRELIMINARY EXAMINATION AND FOR PAYMENT OF FEES.

Each Candidate is required to pay a fee of 10s. 6d. for each appearance at the Preliminary Examination.

Candidates for Examination may obtain Schedules at the Matriculation Office, University (Old) Buildings, on and after 6th September 1898, and on and after 15th February 1899. The Schedules must be completed and returned along with the fees not later than 16th September 1898 and 1st March 1899 for the autumn and spring Examinations respectively.

Candidates may pay the fees personally or transmit them to T. Gilbert, University, Edinburgh, by *Post Office* or *Postal Orders*, or by *Bank Drafts* crossed Union Bank of Scotland (Hunter Square Branch), Edinburgh, and not by cheques on private accounts. When names are not entered and Fees paid on or before the stated dates, an additional or late entry fee of 10s. must be paid before the Candidate can be admitted to Examination. A Candidate is not held to have entered until his Schedule is lodged, the Fee paid, and a Pass to the Examination obtained.

TIME-TABLE FOR PRELIMINARY EXAMINATIONS FOR 1898-99.

			Medical Preliminary Examinations.	Arts and Science Preliminary Examinations.
1898.				
Oct.	1	Sat.	English, 9-12	English, 9-11, 12-2
			Greek, 3-6 [2]	Lower Greek, 3-6
			Do., 3-5 [1]	
,,	3	Mon.	Latin, 9-12 [2]	Lower Latin, 9-12
			Mathematics, 2-5 [2]	Lower Mathematics, 2-5
,,	4	Tu.	French, 3-6	Higher Latin, 9-11, 12-2
			Do., 3-5 [1]	French, 1st paper, 3-4.30
,,	5	Wed.	German, 3-6	Higher Greek, 9-11, 12-2
			Do., 3-5 [1]	German, 1st paper, 3-4.30
,,	6	Th.	Higher Mathematics, [1] 9-11, 12-2.	Intermediate and Higher Mathematics, 9-11, 12-2
				French, 2nd paper, 3-5
,,	7	Fri.	Moral Philosophy, 9-11 [1]	German, 2nd paper, 9-11
			Mechanics, 1-4 [1]	Dynamics, 1-4
,,	8	Sat.	Natural Philosophy, 9-11 [1]	
			Logic, 2-4 [1]	

[1] For Students completing the Examination under the Old Regulations.
[2] Same as the Lower Standard Paper for Degrees in Arts and Science.

			Medical Preliminary Examinations.	Arts and Science Preliminary Examinations.
1899.				
Apr.	1	Sat.	English, 9-12 Greek, 3-6 Do., 3-5[1]	English, 9-11, 12-2 Lower Greek, 3-6
,,	3	Mon.	Latin, 9-12 Mathematics, 2-5	Lower Latin, 9-12 Lower Mathematics, 2-5
,,	4	Tu.	French, 3-6 Do., 3-5[1]	Higher Latin, 9-11, 12-2 French, 1st paper, 3-4.30
,,	5	Wed.	German, 3-6 Do., 3-5[1]	Higher Greek, 9-11, 12-2 German, 1st paper, 3-4.30
,,	6	Th.	Higher Mathematics,[1] 9-11, 12-2	Intermediate and Higher Mathematics, 9-11, 12-2 French, 2nd paper, 3-5
,,	7	Fri.	Moral Philosophy, 9-11[1] Mechanics, 1-4[1 2]	German, 2nd paper, 9-11 Dynamics, 1-4
,,	8	Sat.	Natural Philosophy, 9-11[1] Logic, 2-4[1]	

[1] For Students completing the Examination under the Old Regulations.
[2] Same as Dynamics for Degrees in Arts and Science.

REGULATIONS AS TO CLASS EXAMINATIONS.

With a view to promote the Educational interests of the students during the time they are occupied with the respective subjects in the Classes, the Senatus recommend :—

1. That there should be at least two Special Class-Examinations in the Classes in the Faculty of Medicine during each Session, conducted by means of questions and written answers, without aid from books or notes.

2. That in the event of a student gaining 75 per cent. or more of the available marks in any department, he shall obtain a Certificate in the First Class of Honours.

3. That in the event of a student gaining 50 per cent. or more, but less than 75 per cent., of the available marks in any department, he shall receive a Certificate in the Second Class of Honours.

University Bronze Medals are also given for Competitive Class Examinations.

CERTIFICATES OF ATTENDANCE ON CLASSES IN THE FACULTY OF MEDICINE.

The Senatus Academicus have resolved that the Certificates of Attendance to be granted to students in the Faculty of Medicine shall be regulated in the following manner :—

Each Professor shall ascertain the presence of his pupils at least twenty-six times in a Course of six months' duration, and thirteen times in a Course of three months' duration.

Those who have been absent twelve or more times in a six months' Course, or six or more times in a three months' Course, or have not duly performed the work of the Class, including any Examinations that may be held, shall not be entitled to any Certificate.

The following is the form of Certificate which must be adopted in all cases :—

"I certify that Mr attended my Course of Instruction on during the Session ; that he was present on of the occasions on which attendance was ascertained ; and that he duly performed the work of the class."

Exceptions will be admitted in the case of those who may be absent from sickness or other unavoidable causes, the particulars of which must be stated to the Professor in writing, accompanied with certificates. All excuses for non-attendance must be given in immediately upon the student returning to his class. If any student shall have been absent for six weeks or upwards in a Course of six months, or for three weeks in a Course of three months (whatever the cause of absence may be), his case must be transmitted to the Dean of the Faculty for the decision of the Faculty.

Whenever the student's cause for absence shall be admitted by the Professor or by the Faculty, the Certificate shall bear that he "attended," and shall state the amount of the irregularity and the nature of the excuse.

FIRST PROFESSIONAL EXAMINATION.

The Faculty of Medicine have resolved that the written and oral examinations on Chemistry, Elementary Botany, Elementary Zoology, and Physics shall be restricted in the following manner :—

1. *Chemistry.*—Chemical changes as distinguished from physical changes. Elements ; compounds ; mixtures. Laws of chemical combination by weight and by volume. The atomic theory. Atoms ; molecules. Avogadro's Hypothesis. Molecular weights of gaseous and volatile substances. Atomic weights. Law of Dulong and Petit.

Chemical Notation—Symbols ; formulæ ; equations. Simple chemical calculations.

The non-metallic elements and their chief compounds ; especially the compounds of oxygen, of hydrogen, and of chlorine with the other non-metals. The more important inorganic acids. The atmosphere. Combustion. Oxidation and reduction.

The following metallic elements and their chief compounds ; especially those with oxygen, with chlorine, and with sulphur : Gold, platinum, silver, mercury, lead, antimony, tin, copper, bismuth, zinc, iron, aluminium, chromium, manganese, barium, strontium, calcium, magnesium, potassium, sodium.

The following salts : the ammonium salts ; the more important sulphates, sulphites, thiosulphates, nitrates, nitrites, carbonates, bromides, iodides, iodates, phosphates, borates, silicates.

The relations of bases, acids, and salts. Electrolysis. Quantivalence. The periodic law.

The metallurgy of silver, mercury, copper, lead, tin, zinc, iron (including cast-iron and steel). Alloys, such as brass, bronze, solder, type-metal. Amalgams.

The manufacture of aluminium, magnesium, potassium, sodium, glass, porcelain, mortar, gunpowder, sulphuric acid, sodium carbonate and bicarbonate, caustic soda, bleaching powder and chlorates, white lead.

Classification of Carbon Compounds. Marsh Gas and its Homologues. Chloroform. Methyl and Ethyl Alcohols and Ethers. Substituted ammonias and ammonium salts. Formic and Acetic Acids, Aldehyde, Acetone, Chloral, Olefiant Gas, Acetylene, Oxalic Acid, Lactic Acid. Tartaric Acid, Citric Acid. Fats and Oils, Saponification, Glycerine. Cellulose, Sugars, Starch. Distillation of Wood and of Coal. Benzene, Benzoic Acid, Phenol, Salicylic Acid, Oil of Bitter Almonds. Hydrocyanic Acid, Cyanides, Cyanates, Thiocyanates, Urea, Uric Acid.

Simple Qualitative Analysis. The examination in this is conducted practically. Candidates are required to examine unknown *single salts* for both metallic and salt radicals, as contained in the following lists :—

Silver, Mercurous, Mercuric, Cupric, Lead, Stannous, Stannic, Bismuth, Antimony (*Tartar Emetic* may be given), Arsenious, Zinc, Manganous, Ferrous, Ferric, Chromic, Aluminium, Calcium, Barium, Strontium, Magnesium, Ammonium, Sodium, Potassium.

Carbonate, Sulphite, Thiosulphate, Sulphide, Hypochlorite (Bleaching solution), Nitrite, Chloride, Bromide, Iodide, Cyanide, Sulphate, Chromate, Orthophosphate, Arseniate, Arsenite, Borate, Oxalate, Nitrate, Chlorate, Acetate.

At the examination, Candidates are supplied with the following reagents, &c. :—Acetic Acid, dilute Hydrochloric Acid, dilute Nitric Acid, Sulphuric Acid, dilute Sulphuric Acid, Alcohol, Iodine, Ammonia, Ammonium Carbonate, Ammonium Chloride, Ammonium

Oxalate, Ammonium Sulphide, Barium Nitrate, Bleaching Powder, Calcium Chloride, Calcium Hydrate, Calcium Sulphate, Cobaltous Nitrate, Cupric Sulphate, Ferric Chloride, Ferrous Sulphate, Lead Acetate, Magnesium Sulphate, Mercuric Chloride, Potassium Carbonate, Potassium Chromate, Potassium Ferricyanide, Potassium Ferrocyanide, Potassium Hydrate, Potassium Iodide, Silver Nitrate, Sodium Bitartrate, Sodium Phosphate, Sodium Sulphite, Stannous Chloride, Sulphuretted Hydrogen. *Solids*—Manganese Dioxide, Sodium Carbonate, Borax, Sulphur, Zinc, Copper.

Test papers :— Blue Litmus, Red Litmus, Plain, Starch, Turmeric.

Bunsen Burner, Test Tubes.

2. *Elementary Botany.*—The characteristic features of the following groups and classes of the vegetable kingdom :—

Thallophyta [Schizophyta, Algæ, Fungi]; Muscineæ [Hepaticæ, Musci]; Pteridophyta [Filicineæ, Equisetineæ, Lycopodineæ]; Phanerogamæ [Gymnospermæ, Angiospermæ (Monocotyledones, Dicotyledones)].

The fundamental facts and principles of Morphology (including Anatomy, Histology, and Development) and Physiology. The characters of plants belonging to the following natural orders of Phanerogamæ :— Coniferæ, Gramineæ, Orchideæ, Liliaceæ, Urticaceæ, Labiatæ, Compositæ, Umbelliferæ, Rosaceæ, Leguminosæ, Cruciferæ, Ranunculaceæ.

3. *Elementary Zoology.*—(*a*) The General Principles of Biology.

(*b*) The distinctive characters of the Invertebrate groups, and the structure, habits, &c., of Amœba, Paramœcium, Hydra, Arenicola, Hirudo, Anodon, Helix, Nephrops, and Periplaneta.

(*c*) The distinctive characters of the Chordata groups, and the structure, habits, &c., of Myxine, Raia, Rana, Columba, Ornithorhynchus, Macropus, Lepus, Ovis, and Canis.

(*d*) The skeletons of Crocodilus, Equus, Felis (skull only), Balæna, Vespertilio, and Troglodytes.

(*e*) A general knowledge of the orders of Mammalia.

(*f*) The life-histories of Gregarina, Distoma, Tænia, Ascaris, Trichina, and Filaria.

(*g*) The outlines of the development of Amphioxus, Scyllium, and Rana, and of the fœtal appendages of Gallus and Lepus.

(*h*) The principles of the Geographical Distribution of Animals, and the Distribution of the Mammalia.

4. *Physics.*—(*a*) Properties of Matter—including Inertia, Gravitation, Molecular Forces, &c.

(*b*) Abstract Dynamics—including Kinematics and Newton's Laws of Motion, with their consequences as regards Statics and Kinetics of Solid, Liquid, and Gaseous Bodies, with the Physical Measurement of Time.

(*c*) Sound and Wave-propagation in general, Intensity, Pitch and Quality of Musical Sounds, Harmonics, Concords, &c.

(*d*) Heat, its Nature, Effects, Measurement, Transference and Trans-

formations—Measurement of Temperature and of absolute Temperature, Thermodynamics.

(*e*) Light (1), Geometrical Optics, Speed of Light, Laws of Reflection and Refraction, Construction and Effects of Mirrors, Prisms, Lenses, and Microscopes, Images, Conditions of Distinct Vision. (2) Physical Optics—Interference, Dispersion, Diffraction, Double Refraction, Polarisation, Spectrum Analysis.

(*f*) Electricity, including Frictional and Voltaic Electricity, Thermo- and Magneto-Electricity, Electro-Dynamics and Magnetism, with their practical applications. Measurements of Potential, Electromotive Force, Current, &c., Batteries, Dynamos, Electrometers, Galvanometers, Voltameters, &c.

HONOURS AT PROFESSIONAL EXAMINATIONS.

Candidates who have displayed special merit at any of the Professional Examinations will be announced as having passed that Examination "with distinction."

Candidates who have displayed special merit at each of the Professional Examinations will be announced, at the time of the Graduation, as having obtained FIRST or SECOND CLASS HONOURS, according to the merit that has been displayed.

SPONSIO ACADEMICA FOR GRADUATES IN MEDICINE.

Ego Doctoratus in Arte Medica titulo jam donandus, sancte coram Deo cordium scrutatore, spondeo, me in omni grati animi officio erga Universitatem Academicam Edinburgensem ad extremum vitæ halitum perseveraturum.

Tum porro Artem Medicam caute, caste, probeque exercitaturum, et quoad potero, omnia ad ægrotorum corporum salutem conducentia cum fide procuraturum. Quæ, denique, inter medendum visa vel audita sileri conveniat, non sine gravi causa vulgaturum.

Ita præsens spondenti adsit Numen.

FEES FOR EXAMINATIONS.

FEES FOR M.B. AND CH.B.

Fee for the First Division of the Examination, viz., Botany, Zoology, Physics, and Chemistry . .			£6 6 0
or			
For any two of the subjects . .	£3 3 0		
For the other two subjects . .	3 3 0		
Carry forward,			£6 6 0

Brought forward,			£6	6 0
For the Second Division, viz., Anatomy, Physiology, and Materia Medica and Therapeutics . . .			6	6 0
or				
For Anatomy and Physiology . .	£4	4 0		
For Materia Medica and Therapeutics	2	2 0		
For the Third Division, viz., Pathology, and Medical Jurisprudence and Public Health			4	4 0
For the Final Division, viz., Surgery and Clinical Surgery, Medicine and Clinical Medicine, and Midwifery			6	6 0
			£23	2 0

Any Candidate who fails to pass in one or more of the subjects, pays £1, 1s. for re-examination in each subject.

Candidates who, under the proviso in Section XI. of the Regulations, are exempted from the first division of the Examination, are required, after passing the final division of the Examination, to pay a fee of £6, 6s. before they can be admitted to the Degrees of M.B. and Ch.B.

Fee for M.D.	£10 10 0
Fee for Ch.M.	£10 10 0
Fee for D.Sc.	£10 10 0

Any Candidate who fails to pass the Examinations for the Degree of M.D. or for the Degree of Ch.M., or for the Degree of D.Sc., is required to pay a Fee of £5, 5s. for each re-appearance.

Every Candidate for Examination or Graduation must be a Matriculated Student of the year in which he appears for Examination or Graduation. He is also required to pay the fee of £1 for Registration as a Member of the General Council, if not already a Member.

N.B.—The above Fees include all charges for the Diplomas, and Graduates are requested to apply personally for their Diplomas at the Matriculation Office between 12 and 3 on the day of graduation. Any Graduate who cannot appear personally is required to give written authority to some person to receive and give a receipt for his Diploma.

TIME-TABLES OF EXAMINATIONS.

Candidates are required to enter for each periodical Professional Examination at which they desire to appear, and to state the subject or subjects in which they desire to be examined.

The dates of the Examinations for 1898-99 have been fixed as follows, and Candidates are required to assemble in the Examination Hall at the University a quarter of an hour before the time fixed for examination.

Preliminary Examination.

See Time-Table and Dates of Entering, &c., pages 364 and 365.

PROFESSIONAL EXAMINATIONS.

Candidates are required to enter their names and to pay the fees for the Examinations at the Matriculation Office, University (Old) Buildings, at the stated periods; and afterwards, at the stated periods, to exhibit their Certificates and Matriculation Cards at that Office. Certificates only will be received as evidence of attendance.

If names are not entered, Fees paid, and Certificates shown, or Theses lodged, on or before the stated dates (or a Pass obtained in the case of the fee having been previously paid), a late-entry fee of ten shillings must be paid before the Candidate can be admitted to any one of the Four Professional Examinations for M.B., or to the Professional Examinations for M.D. or Ch.M. Candidates may enter on payment of this fee till 4 P.M. on the third day previous to the commencement of the respective Examinations. Thereafter a late-entry fee of twenty shillings will be charged till twelve noon of the day preceding the commencement of any one of the Four Professional Examinations. No later entry will be received.

Candidates for M.D. and for Ch.M. whose Theses are not lodged by the appointed time (30th April), are not eligible for competition for medals or other awards.

First Professional Examination.

This Examination takes place in March and July. Candidates may be admitted to Examination in all or in any two subjects, after they have attended a full course in each of the subjects professed.

1899.

Mar.	7.	Tu.	Names to be given in, and Fees paid, *on or before* this date.
,,	24.	Fri.	Certificates to be examined from 10 to 3.
,,	25.	Sat.	Practical Chemistry Examination begins at hours to be announced (also on subsequent days if necessary).

Written Examinations.[1]

,,	27.	Mon.	Chemistry at 10 o'clock; Physics at 1 o'clock.
,,	28.	Tu.	Zoology at 10 o'clock; Botany at 1 o'clock.
July	7.	Fri.	Names to be given in, and Fees paid *on or before* this date.
,,	14.	Fri.	Certificates to be examined from 10 to 3.
,,	15.	Sat.	Practical Chemistry Examination begins at hours to be announced (also on subsequent days if necessary).

[1] Lists for the Oral Examinations will be posted immediately after the respective Written Examinations.

1899. *Written Examinations.*[1]

July 17. Mon. Chemistry at 10 o'clock; Physics at 1 o'clock.
,, 18. Tu. Zoology at 10 o'clock; Botany at 1 o'clock.

Second Professional Examination.

This Examination takes place in March and July. Candidates who have passed the First Examination may be admitted to this Examination at the end of their Third Winter Session.

Mar. 13. Mon. Names to be given in, and Fees paid *on or before* this date.
,, 25. Sat. Certificates to be examined from 9 to 2.

Written Examinations.[1]

,, 29. Wed. Anatomy at 10 o'clock; Physiology at 1 o'clock.
,, 30. Thur. Materia Medica and Therapeutics at 10 o'clock.

Candidates may postpone their Examination in Materia Medica and Therapeutics until the close of the Summer Session following.

July 13. Thur. Names to be given in, and Fees paid *on or before* this date.
,, 15. Sat. Certificates to be examined from 9 to 2.

Written Examination.[1]

,, 20. Thur. Anatomy at 10 o'clock; Physiology at 1 o'clock.
,, 21. Fri. Materia Medica and Therapeutics at 10 o'clock.

Third Professional Examination.

This Examination takes place in March and July, and Candidates who have passed the Second Examination may be admitted to this Examination at the end of their Fourth Winter Session.

1899.
Mar. 17. Fri. Names to be given in, and Fees paid *on or before* this date.
April 7. Fri. Certificates to be examined from 10 to 3.

Written Examinations.[1]

,, 8. Sat. Pathology at 10 o'clock; Medical Jurisprudence and Public Health at 1 o'clock.

Candidates may postpone their Examination in Medical Jurisprudence and Public Health until the close of the Summer Session following.

July 18. Tu. Names to be given in and Fees paid *on or before* this date.
,, 24. Mon. Certificates to be examined from 10 to 3.

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[1] See footnote 1, page 371.

1899. *Written Examination.*[1]

July 25. Tu. Pathology at 10 o'clock. Medical Jurisprudence and Public Health at 1 o'clock.

FOURTH OR FINAL PROFESSIONAL EXAMINATION.

This Examination takes place in May and June, and may be taken when the Candidate has passed the Third Examination, and has completed his Fifth year of Medical Study.

April 18. Tu. Names to be given in and Fees paid *on or before* this date.

,, 19. Wed. } Certificates to be examined from 10 to 1.
,, 20. Thur. }

Written Examinations.[1]

May 2. Tu. Clinical Medicine Examination begins.
June 19. Mon. Medicine at 10 o'clock; Midwifery at 1 o'clock.
,, 20. Tu. Surgery at 10 o'clock.
,, 21. Wed. Clinical Surgery Examination begins.

DEGREE OF DOCTOR OF MEDICINE.[2]

April 30. Theses to be lodged, Certificates shown, and Fees paid *on or before* this date.

Written Examinations.[2]

June 23. Fri. Names to be entered and Fees paid by Candidates for Clinical Examination only *on or before* this date.
July 7. Fri. Clinical Medicine Examination begins at 9.45 A.M.

1899. DEGREE OF MASTER OF SURGERY.[2]

April 30. Theses to be lodged, Certificates shown, and Fees paid *on or before* this date.

Written Examinations.[3]

June 23. Fri. Names to be entered and Fees paid by Candidates for Clinical Examination only *on or before* this date.
July 7. Fri. Surgical Anatomy. Operations on the dead body. Clinical Surgery Examinations begin.

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[1] See footnote 1, page 371.

[2] If Theses and Certificates are not lodged, or fees not paid, on or before the dates specified, a late-entry fee of 10s. will be charged. See also Regulations as to entering for Examinations, page 371.

[3] See footnote 1, page 371. See also Regulations as to entering for Examinations, page 371.

1899.			DEGREE OF D.Sc.
Dec.	1.	Fri.	Theses to be lodged, Certificates shown, and Fees paid *on or before* this date.
July	19.	Wed.	Names to be given in for Graduation, and the Registration Fee (if not previously registered) paid *on or before* this date.
,,	29.	Sat.	GRADUATION CEREMONIAL[1] at 10 A.M. Graduands to assemble at 8.45 A.M.

Information relative to Matriculation and the Curriculum of Study, and the Subjects of Examinations for Degrees in Medicine and Surgery, and for Fellowships, Scholarships, Bursaries, Prizes, &c., &c., may be obtained on application to the Dean of the Faculty of Medicine, University New Buildings.

The fees for Matriculation, for Examinations for Degrees, and for Registration as Members of the General Council of the University, are payable at the *Matriculation Office*, *University* (*Old*) *Buildings*. Candidates may pay the fees personally, or transmit them to T. GILBERT, University, Edinburgh, by *Post Office* or *Postal Orders*, or by *Bank Drafts*, crossed "*Union Bank of Scotland* (*Hunter Square Branch*), *Edinburgh*," but not by cheques on private accounts. A Candidate is not held to be entered until his schedule is lodged, the fee paid, and a pass to the Examination obtained.

EXTRA-ACADEMICAL TEACHERS.

REGULATIONS OF THE UNIVERSITY COURT RELATIVE TO CERTIFICATES OF ATTENDANCE.

The Certificate of Attendance granted to Students by recognised Extra-Academical Teachers, should, in all cases, state the number of Lectures, or of Meetings for Practical Instruction, in the Course; the number of occasions on which attendance was ascertained; and the number of those occasions on which the Student was present, and in what further respects he duly performed the work of the class. The Certificate should also state the general scope of the Course; and, in particular, in the case of *Chemistry*, that the Course included Organic as well as Inorganic Chemistry; in the case of *Midwifery*, that it included the Diseases of Women and Children; and, in the case of *Practical Materia Medica*, that it included Pharmacognosy, Pharmacy, Dispensing, and the writing of Prescriptions.

[1] See *N.B.*, page 370.

EXTRA-ACADEMICAL TEACHERS, WHOSE LECTURES QUALIFY FOR GRADUATION IN THIS UNIVERSITY.

(*See preceding paragraph.*)

ABERYSTWYTH.

		Date of Recognition.
J. Ainsworth Davis, M.A.	Natural History,	28 July 1886.
D. Morgan Lewis	Physics,	16 July 1894.
J. H. Salter, B.Sc.	Botany,	30 Oct. 1893.
H. Lloyd Snape, D.Sc.	Chemistry & Practical Chemistry,	19 March 1888.
James J. Dobbie, D.Sc.,	Chemistry & Practical Chemistry,	30 May 1885.

BANGOR.

		Date of Recognition.
Andrew Gray,	Physics,	26 Oct. 1892.
Reginald W. Phillips, M.A.,	Botany,	30 May 1885.
Philip J. White, M.B.,	Natural History,	9 Dec. 1889.

BELFAST.

R. O. Cunningham, M.D.,	Zoology,	18 Feb. 1895.

BIRMINGHAM.

F. J. Allen, M.A.,	Physiology & Practical Physiology,	12 Dec. 1887.
T. W. Bridge, M.A.,	Zoology,	9 July 1883.
Percy F. Frankland, Ph.D.,	Chemistry & Practical Chemistry,	16 July 1894.
W. Hillhouse, M.A.,	Botany,	26 Nov. 1883.
J. H. Poynting, D.Sc.,	Physics,	12 June 1893.
Bertram C. A. Windle, M.D.,	Anatomy,	17 Nov. 1884. 29 Oct. 1888.

BRISTOL.

G. Munro Smith, L.R.C.P., M.R.C.S.	Physiology & Practical Physiology,	29 Oct. 1888.

(*Certificates for two consecutive Lecture Courses required.*)

CARDIFF.

John Berry Haycraft, M.D.,	Physiology,	16 July 1894.
J. V. Jones, M.A., B.Sc.,	Physics,	16 July 1894.
W. N. Parker, Ph.D.,	Natural History,	28 July 1886.
Arthur L. Selby, M.A.,	Physics,	21 Oct. 1895.
Claud M. Thompson, M.A., D.Sc.,	Chemistry & Practical Chemistry,	28 July 1886.

(*Lecture Course may be divided between two consecutive Sessions.*)

A. H. Trow, B.Sc.,	Botany,	16 July 1894.

CORK.

		Date of Recognition.
J. J. Charles, M.D., D.Sc.,	Physiology,	18 Feb. 1895.
(*Qualifying Course to embrace "Ordinary Course" and Course for Senior Students.*)		
Marcus Hartog, M.D., D.Sc.,	Zoology,	18 Mar. 1895.

DUBLIN.

A. C. Haddon, M.A.,	Natural History,	23 Jan. 1888.
Chs. R. C. Tichborne, Ph.D.,	Practical Chemistry,	28 Feb. 1881.

EDINBURGH.

A. P. Aitken, D.Sc.,	Chemistry & Practical Chemistry,	29 Oct. 1888.
J. O. Affleck, M.D.,	Practice of Physic,	8 Dec. 1879.
J. W. Ballantyne,	Midwifery,	13 Dec. 1897.
R. J. A. Berry, M.D.,	Anatomy,	14 Dec. 1896.
Byrom Bramwell, M.D.,	Practice of Physic,	18 Oct. 1880.
Alexander Bruce, M.D.,	Pathology & Practical Pathology,	24 January 1887.
A. G. Bruce,	Practical Materia Medica,	18 June 1894.
Francis M. Caird, M.B., C.M.,	Surgery,	13 August 1886.
Wm. Craig, M.D.,	Materia Medica & Prac. Materia Med.	14 July 1879.
T. W. Drinkwater, Ph.D.	Chemistry and	8 March 1880.
	Practical Chemistry,	14 July 1879.
William Duncan,	Prac. Materia Med.,	12 April 1886.
R. A. Fleming, M.A., M.D.	Medicine,	13 Dec. 1897.
E. S. Fry, M.B.,	Practical Materia Medica,	21 Oct. 1895.
George A. Gibson, M.D.,	Practice of Physic,	9 Dec. 1889.
A. Lockhart Gillespie, M.D.,	Materia Medica,	25 Oct. 1897.
David Berry Hart, M.D.,	Midwifery,	22 Oct. 1894.
F. W. N. Haultain, M.D.,	Midwifery,	15 June 1891.
J. W. B. Hodsdon, M.D.,	Surgery,	3 August 1888.
John Hunter, F.I.C., &c.,	Chemistry & Practical Chemistry,	22 Oct. 1894.
Alex. James, M.D.,	Practice of Physic,	3 August 1888.
Alexander Johnstone,	Botany,	26 Oct. 1892.
J. Falconer King, F.C.S.,	Chemistry & Practical Chemistry,	12 Nov. 1894.
R. F. C. Leith, M.B., B.Sc.,	Pathology,	26 Oct. 1892.
	Prac. Pathology,	13 June 1892.
Harvey Littlejohn, M.D.,	Medical Jurisprudence,	17 May 1897.

EDINBURGH—*continued.*		*Date of Recognition.*
Stevenson Macadam, Ph.D.,	Chemistry & Practical Chemistry,	before 1861.
W. Ivison Macadam, F.R.S.E.	Chemistry & Practical Chemistry,	23 July 1888.
A. N. M'Alpine, B.Sc.,	Botany,	8 March 1880.
George Mackay, M.D.,	Ophthalmology,	13 July 1896.
J. S. M'Laren, M.B.,	Surgery,	26 Oct. 1892.
R. Milne Murray, M.B.,	Midwifery,	13 August 1886.
D. Nöel Paton, M.D.,	Physiology and Prac. Physiology,	24 Oct. 1887. 19 March 1888.
R. W. Philip, M.D.,	Medicine,	16 July 1894.
J. B. Readman, D.Sc.,	Practical Chemistry,	17 Dec. 1888.
W. G. Aitchison Robertson, M.D.	Public Health,	10 April 1897.
William Russell, M.D.,	Pathology & Practical Pathology,	6 August 1887.
Alexis Thomson, M.D.,	Surgery,	30 Oct. 1893.
J. Arthur Thomson, M.A.,	Natural History,	28 July 1886.
J. Batty Tuke, M.D., and John Macpherson, M.D., conjointly,	Mental Diseases,	13 July 1896.
R. Turnbull, B.Sc.,	Botany,	18 Feb. 1895.
Dawson F. D. Turner, M.D.,	Physics,	20 March 1893.
David Wallace, M.B.,	Surgery,	14 Dec. 1896.
J. R. Whitaker, M.B.,	Anatomy,	16 July 1894.
William Wood, M.B.,	Prac. Materia Med.,	15 June 1893.

GLASGOW.

John Barlow, M.D.,	Physiology, Prac. Physiology,	26 Nov. 1883. 8 January 1890.
D. Campbell Black, M.D.,	Physiology,	15 July 1895.
A. M. Buchanan, M.D.,	Anatomy and Practical Anatomy,	12 Oct. 1874.
R. M. Buchanan, M.D.,	Medical Jurisprudence,	13 July 1896.
H. E. Clark, M.D.,	Surgery,	12 Feb. 1894.
James Dunlop, M.D.,	Surgery,	12 Oct. 1874.
John Edgar, M.D., B.Sc.,	Midwifery,	14 Dec. 1896.
Samson Gemmell, M.D.,	Practice of Physic,	18 July 1881.
R. T. Kent, F.R.C.S.,	Practical Anatomy,	18 Dec. 1893.
R. Barclay Ness, M.A., M.B.,	Materia Medica & Prac. Materia Med.	16 Dec. 1895.
Alex. Robertson, M.D.,	Practice of Physic,	15 June 1891.
John Lindsay Steven, M.D.,	Pathology & Practical Pathology,	10 April 1893.

		Date of Recognition.
LONDON.		
H. D. Armstrong, Ph.D., F.R.S.,	Chemistry,	25 Oct. 1897.
W. E. Ayrton, F.R.S., (Lecturers in the City Guilds of London Institute.)	Physics,	25 Oct. 1897.
(*Courses to include First and Second Years of Study.*)		
G. B. Howes,	Natural History,	18 July 1887.
NOTTINGHAM.		
J. W. Carr, M.A.,	Botany,	16 Jan. 1893.
Frank Clowes, D.Sc.,	Chemistry & Practical Chemistry,	9 Dec. 1889.
SHEFFIELD.		
W. Carlton Williams, B.Sc.,	Chemistry & Practical Chemistry,	26 Nov. 1883.

B.—REGULATIONS FOR GRADUATION IN MEDICINE AND SURGERY, APPLICABLE TO ALL WHO COMMENCED THEIR MEDICAL STUDIES BEFORE 1ST OCTOBER 1892.

Three Degrees in Medicine and Surgery are conferred by the University of Edinburgh—viz., Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.). The Degree of Master in Surgery is not conferred on any person who does not at the same time obtain the Degree of Bachelor of Medicine.

These Degrees admit to the General Council of the University, and to the Medical Register. They qualify for Practice throughout Her Majesty's dominions, and for admission to the Military, Naval, and other Public Medical Services in the United Kingdom.

All Candidates must give evidence of having obtained a satisfactory General Education.

PRELIMINARY EXAMINATION.[1]

See Time-Table of Examinations, Dates for Entering and Payment of Fees, &c., pp. 364 *and* 365.

I. The preliminary branches of extra-professional education are English, Latin, Arithmetic, the Elements of Mathematics, and the Elements of Mechanics; and the proficiency of Students in these branches is ascertained by examination, prior to the commencement of their medical study.

[1] The Dean of the Faculty will give information regarding examinations which exempt from the Preliminary Examination; and see also CALENDAR for 1892-93, and previous Calendars, for examinations which exempt.

II. No Candidate is admitted to a professional examination who has not passed a satisfactory examination on at least two of the following subjects (in addition to the subjects mentioned above):—Greek, French, German, Higher Mathematics, Natural Philosophy, Logic, Moral Philosophy; and the examination on these latter subjects also takes place before the candidate has entered on his Medical Curriculum.

III. A Degree in Arts (not being an Honorary Degree) in any one of the Universities of England, Scotland, or Ireland, or in any Colonial or Foreign University, specially recognised for this purpose by the University Court, exempts from all preliminary examination; and an Examination in Arts by any corporate body, whose examination has been recognised as qualifying for entrance on medical study by resolution of the General Medical Council of the United Kingdom, provided the said examination by the said corporate body shall be also approved by the University Court, shall exempt, *pro tanto*, from preliminary examination in Arts, on the subjects comprised in the said examination of the said corporate body.[1]

Optional Preliminary Subjects of Examination under the Old Regulations for Bachelors of Medicine who intend to proceed to the Degree of Doctor of Medicine, and for those who commenced the Study of Medicine by attendance on Medical Classes before 1st October 1892, for Autumn 1898 to Spring 1900 inclusively.

Each Candidate is required to pay a fee of 10s. 6d. for each appearance at the Preliminary Examination.

1. GREEK.—Xenophon, *Cyropaedia*, Book VI. Some easy sentences of English will be set to be translated into Greek.

2. FRENCH.—Alphonse Daudet's *Le petit Chose, première partie* (Hachette & Co.). An easy passage in English will be given for translation into French.

3. GERMAN.—Homann, *Deutsche Märchen*, Nos. 8-14. An easy passage in English will be given for translation into German.

4. HIGHER MATHEMATICS.—Same as Higher Mathematics for the Preliminary Examination for the Degree of M.A.

5. NATURAL PHILOSOPHY.—(1.) Properties of matter—Elasticity, Density, Porosity, Capillarity, &c. (2.) Elementary phenomena of Sound, Light, Heat, Electricity, and Magnetism. Text-Books recommended—Balfour Stewart's *Elementary Physics*, and Tait's *Properties of Matter*.

6. LOGIC.—The Elements of Deductive and Inductive Logic, as in Fowler or Jevons.

7. MORAL PHILOSOPHY.—Professor Calderwood's *Handbook of Moral Philosophy*.

[1] See footnote, page 378.

PROFESSIONAL EDUCATION.

IV. No one is admitted to the DEGREES of BACHELOR of MEDICINE and MASTER in SURGERY who has not been engaged in Medical and Surgical study for four years—the Medical Session of each year, or *Annus Medicus*, being constituted by at least two Courses of not less than one hundred lectures each, or by one such Course, and two Courses of not less than fifty lectures each; with the exception of the Clinical Courses, in which lectures are to be given at least twice a week during the prescribed periods.

V. Every Candidate for the Degrees of M.B. and C.M. must give sufficient evidence by certificates—[1]

1. That he has studied each of the following departments of Medical Science, viz.,

ANATOMY, ...	During Courses including not less than One Hundred Lectures.
CHEMISTRY, ...	
MATERIA MEDICA, ...	
INSTITUTES OF MEDICINE OR PHYSIOLOGY,	
PRACTICE OF MEDICINE, . . .	
SURGERY, ...	
MIDWIFERY, and the DISEASES peculiar to WOMEN and CHILDREN; two Courses of Midwifery, of Three Months each, being reckoned equivalent to a Six Months' Course, provided different departments of Obstetric Medicine be taught in each of the Courses, . .	
GENERAL PATHOLOGY, or in Schools where there is no such Course, a Three Months' Course of Lectures on Morbid Anatomy, together with a Supplemental Course of Practice of Medicine or Clinical Medicine,	
PRACTICAL ANATOMY, .	A Course of the same duration as those of not less than One Hundred Lectures above prescribed.[2]
PRACTICAL CHEMISTRY, .	Three Months.

[1] No Course of Lectures will be allowed to qualify unless the Lecturer certifies that it has embraced at least 100 lectures or 50 lectures, in conformity with the requirements of this section. Three Months' Courses on Materia Medica, Pathology, and Midwifery do not qualify.

[2] Certificates of attendance on Practical Anatomy must express not only the number of months engaged in dissection, but the names of the parts dissected, and the degree of care with which the dissections have been made. Students are recommended not to appear for examination in Anatomy, with a view to a Degree, until they have dissected the human body at least once.

CLINICAL MEDICINE,[1] .	Courses of the same duration, as those of not less than One Hundred Lectures above prescribed, or Two Courses of Three Months, Lectures being given at least twice a week.
CLINICAL SURGERY,[1] .	

MEDICAL JURISPRUDENCE, . .	During Courses including not less than Fifty Lectures.
BOTANY, ...	
NATURAL HISTORY, including ZOOLOGY,	

2. That he has attended for at least two years the Medical and Surgical Practice of a General Hospital which accommodates not fewer than eighty patients, and possesses a distinct staff of Physicians and Surgeons.

3. That he has attended during a Course of not less than fifty hours' instruction the Class of Practical Materia Medica and Pharmacy in the University of Edinburgh, or a similar class conducted in a University or recognised School of Medicine, or a similar Class conducted at the Laboratory of an Hospital or Dispensary, or elsewhere, by a Teacher recognised by the University Court under Section VI. Sub-section 4; or, that he has been engaged by apprenticeship,[2] for not less than two years, with a Registered Medical Practitioner, or a Member of the Pharmaceutical Society of Great Britain, or a Member of the Pharmaceutical Society of Ireland, or a Pharmaceutical Chemist, or Chemist and Druggist, registered under the provisions of the "Act for regulating the qualifications of Pharmaceutical Chemists, 1852," "The Pharmacy Act, 1868," or "The Pharmacy Act (Ireland), 1875," in the *bona fide* compounding and dispensing of Drugs, and the preparation of their officinal and other Preparations under his superintendence.

4. That he has attended, for at least six months, by apprenticeship or otherwise, the *out-practice* of an Hospital, or the practice of a Dispensary, Physician, Surgeon, or Member of the London or Dublin Society of Apothecaries.

5. That he has attended at least twelve cases of labour under the superintendence of a registered Medical Practitioner; or that he has attended six such cases, and also has attended for at least three months the practice of a Midwifery Hospital in which practical instruction is regularly given.

6. That he has attended, during courses of not less than fifty hours' instruction, Classes of Practical Physiology and Practical Pathology in the University of Edinburgh, or in a University or School of Medicine

[1] The Classes of Clinical Medicine and Clinical Surgery, as now constituted by the New Medical Ordinances, consist of instruction at the bedside as well as Clinical Lectures. In future no Certificates of Attendance obtained subsequently to October 1892 will be accepted unless they conform with these requirements. These Classes are only open to students holding the Hospital Ticket. See footnote 3, page 350.

[2] Apprenticeship, Dispensary or Hospital Practice, Practical Midwifery, and Vaccination, &c., are not reckoned as *Classes* in making up an *Annus Medicus*.

recognised by Sub-sections 2 and 4 of Section VI. of Ordinance No. 8, Edinburgh No. 3, or upon Classes thereof, conducted by a Teacher recognised by the University Court under the said Sub-section 4.

VI. The studies of Candidates for the Degrees of Bachelor of Medicine and Master in Surgery are subject to the following Regulations :—

1. One of the four years of Medical and Surgical study, required by Section IV., must be in the University of Edinburgh.

2. Another of such four years of Medical and Surgical study must be either in the University of Edinburgh, or in some other University entitled to give the Degree of Doctor of Medicine.

3. Attendance during at least six winter months on the Medical or Surgical Practice of a General Hospital, which accommodates at least eighty patients, and, during the same period, on a course of Practical Anatomy, may be reckoned as one of such four years, and to that extent shall be held equivalent to one year's attendance on Courses of Lectures as above prescribed.

4. One year's attendance on the Lectures of Teachers of Medicine in the Hospital Schools of London (including the Professors in the Faculty of Science, in subjects required for graduation, in King's College and University College, London), or in the School of the College of Surgeons in Dublin, or of such Teachers of Medicine in Edinburgh, or elsewhere, as may from time to time be recognised by the University Court, may be reckoned as one of such four years, and to that extent shall be held as attendance on Courses of Lectures as above prescribed.

5. Candidates may, to the extent of Four of the Departments of Medical Study required by Section V., Sub-section 1, attend in such year or years of their Medical and Surgical studies, as may be most convenient to them, the Lectures of the Teachers of Medicine specified in the foregoing Sub-section 4.

[Thus, Students of Medicine in the London Schools and in the School of the College of Surgeons in Dublin can obtain there two *Anni Medici* out of the four required for the Edinburgh Degrees in Medicine. Courses of Lectures in these Schools, and the Courses of the Medical Teachers and of the Science Teachers in King's College and in University College, London, in the Subjects of Graduation, are regarded as equivalent to Lectures on the corresponding subjects in this University, except Materia Medica and Midwifery, which, when only three months' Courses, are not received as equivalent. One *Annus Medicus* may be constituted by attendance on Practical Anatomy and Hospital Practice during the Winter Session. Another *Annus Medicus* by attending either (*a*) full Winter Courses on any two of the following subjects: Anatomy, Physiology, Chemistry, Patho-

logy, Surgery, Medicine, Clinical Surgery, Clinical Medicine; or (*b*) on one such Course and two three months' Courses on any of the following subjects: Botany, Practical Chemistry, Natural History, Medical Jurisprudence. If the Student selects the arrangement prescribed in (*a*), attendance on a third Course, although unnecessary to constitute an *Annus*, will also be accepted. The other subjects, and the additional Courses, not given in London or Dublin, necessary for the degrees of the University, require to be attended at this University.

In Provincial Schools, where there are no Lecturers recognised by the University Court, a Candidate can have only One *Annus Medicus*, and this is constituted by attendance on a Qualified Hospital along with a course of Practical Anatomy, but in a Provincial School where there are two or more Lecturers recognised by this University, a Second *Annus Medicus* may be made by attendance on at least two six months', or one six months' and two three months', recognised Courses.

6. All Candidates not Students of the University, availing themselves of the permission to attend the Lectures of Extra-Academical Teachers in Edinburgh, must, at the commencement of each year of such attendance, enrol their names in a book to be kept by the University for that purpose, paying a Fee of the same amount as the Matriculation Fee paid by Students of the University, and having, in respect of such payment, a right to the use of the Library of the University.

7. The Fee for attendance on the Lectures of an Extra-Academical Teacher in Edinburgh, with a view to Graduation, must be of the same amount as that exigible by Medical Professors in the University.

[*The Fee must be paid at the commencement of the Course, and Certificate must state the amount of the fee paid.*]

8. No Teacher is recognised who is at the same time a Teacher of more than one of the prescribed branches of study, except in those cases where Professors in the University are at liberty to teach two branches.

9. It is not necessary for any Teacher, attendance on whose Lectures was recognised before 1861 for the purposes of Graduation in the University, to obtain a new recognition from the University Court; and attendance on the Lectures of every such Teacher will continue to be recognised as heretofore.

10. It is in the power of the University Court, if they shall see cause, at any time to withdraw or suspend the recognition of any Teacher or Teachers.

VII. Every Candidate must deliver, before the 31st day of March of the year in which he proposes to Graduate, to the Dean of the Faculty of Medicine—

1. A declaration, in his own handwriting, that he has completed his twenty-first year, [or that he will have completed it on or before the day of Graduation,] and that he will not be, on the day of Graduation, under

articles of apprenticeship to any Surgeon or other master. (This declaration, along with a statement of studies, is appended to the Schedule for the Final Examination, and must be attested and signed before the Schedule is given in.)

2. A statement of his studies, as well in Literature and Philosophy as in Medicine, accompanied with proper certificates.

PROFESSIONAL EXAMINATIONS.

VIII. Each Candidate is examined, both in writing and *viva voce—Firstly*, on Chemistry, Botany, and Natural History; *Secondly*, on Anatomy, Institutes of Medicine, Materia Medica [including Practical Pharmacy and Prescribing], and Pathology; *Thirdly*, on Surgery, Practice of Medicine, Midwifery, and Medical Jurisprudence; *Fourthly*, Clinically on Medicine and on Surgery in an Hospital. The *viva voce* examinations on Anatomy, Chemistry, Institutes of Medicine, Botany, Natural History, Materia Medica and Pathology are conducted, as far as possible, by demonstrations of objects placed before the candidates.

IX. Students who profess themselves ready to submit to an examination in the first division of these subjects may be admitted to examination therein at the first period of examination after they have completed their attendance on the necessary classes: provided always that it shall be lawful for students to proceed to examination in the said subjects under one or more of the following sub-divisions, namely—(*a*) Botany and Natural History, (*b*) Chemistry (including Practical Chemistry), (*c*) Botany and Chemistry (including Practical Chemistry), or (*d*) Natural History and Chemistry (including Practical Chemistry), at the first period of examination after they have completed attendance on the relative classes; and to proceed to examination in the remaining subject or subjects at a subsequent period of examination.

X. Students who have passed their examination on the first division of these subjects, may be admitted to examination on the second division at the end of their third year.

XI. The examination on the third and fourth divisions cannot take place until the candidate has completed his fourth *Annus Medicus.*

XII. Candidates may, if they choose, be admitted to examination on the first two of these divisions at the end of their third year, or to the four examinations at the end of their fourth year.

[Thus, Candidates for the First Professional Examination, after they have completed attendance on the necessary Classes, may appear for Examination in all the subjects, or they may appear for Examination in one or more of the separate sub-divisions mentioned in Section IX. ; for the Second Professional Examination attendance for three complete *Anni Medici* is required ; and for the Final Professional Examination, four complete *Anni Medici* are required. Qualifying courses must have been attended on all the subjects of each division or sub-division of Examination previously to the Candidate being admitted to examination in that division.]

XIII. If any Candidate at these examinations be found unqualified, he cannot be again admitted to examination unless he has studied, during another year, two of the prescribed subjects,[1] either in the University, or in some other School of Medicine.

DEGREE OF DOCTOR OF MEDICINE.

XVII. The Degree of DOCTOR OF MEDICINE may be conferred on any candidate who has obtained the Degrees of Bachelor of Medicine and Master in Surgery, and is of the age of twenty-four years, and produced a certificate of having been engaged subsequently to his having received the Degrees of Bachelor of Medicine and Master in Surgery, for at least two years in attendance on an Hospital, or in the Military or Naval Medical Services, or in Medical and Surgical Practice:

Provided always that the Degree of Doctor of Medicine shall not be conferred on any person, unless he be a Graduate in Arts of one of the Universities of England, Scotland, or Ireland, or of such other Universities as are above specified [Section III.], or unless he shall, before or at the time of his obtaining the Degrees of Bachelor of Medicine and Master in Surgery, or thereafter, have passed a satisfactory examination on *three* of the subjects mentioned in Section II. of the Statutes relative to Preliminary Examination. Two of these must be Greek, and either Logic or Moral Philosophy, and the third must be one of the following subjects at the option of the Candidate—namely, French, German, Higher Mathematics, and Natural Philosophy.

[1] Satisfactory Certificates must be produced as evidence of such study.

And provided also that the candidate for the Degree of Doctor of Medicine shall submit to the Faculty of Medicine a Thesis, certified by him to have been composed by himself, and which shall be approved by the Faculty, on any branch of knowledge comprised in the professional examinations for the Degrees of Bachelor of Medicine and Master in Surgery, which he may have made a subject of study after having received those Degrees. The Candidate must lodge his Thesis with the Dean on or before 30th April of the year in which he proposes to graduate. No Thesis will be approved by the Medical Faculty which does not contain either the results of original observations in practical Medicine, Surgery, Midwifery, or in some of the sciences embraced in the curriculum for the Bachelor's and Master's Degrees; or else a full digest and critical exposition of the opinions and researches of others on the subject selected by the Candidate, accompanied by precise references to the publications quoted, so that due verification may be facilitated.[1]

Candidates, settled for a period of years in foreign parts, who have complied with all the regulations for the Degree of M.D., but who cannot appear personally to receive the Degree, may, on satisfying the Senatus to that effect, by production of sufficient official testimonials, have the Degree conferred on them in absence.

The Regulations regarding Matriculation, Attendance on the necessary Classes, Vaccination, &c., are the same as under the New Regulations.

FEES FOR DEGREES, &c.

Examination in Botany, Chemistry, Chemical Testing, Natural History, ...	£5	5	0
Examination in Anatomy, Institutes of Medicine, Materia Medica, Prescriptions, Pathology, ...	5	5	0
Final Examination in Surgery, Midwifery, Practice of Physic, Medical Jurisprudence, Clinical Medicine (with Prescriptions), Clinical Surgery, during last Summer Session, ...	10	10	0
Total Fees for M.B. and C.M. Diplomas, .	£21	0	0

[1] Candidates are required to write their Theses on faint lined paper, 11 in. by 8½ in. with margins 1½ in. at each side. The Thesis is to be written on one side of each leaf only.

Additional Fee for M.D. Diploma, ...	£5	5	0
Matriculation Fee, ...	1	1	0
Fee for Registration as a Member of the University General Council, if not already a Member, . .	1	0	0

In the event of the Candidate failing to pass any one of the Professional Examinations, the Fee is not returned; but he may appear at one subsequent examination without paying an extra Fee, and at any future examination on paying a Fee of £2, 12s. 6d.

TIME-TABLE OF EXAMINATIONS,[1] &c.

Preliminary Examination.

See Time-Table of Examinations, Dates of Entering, &c., pages 364 *and* 365.

The dates of the Examinations for 1898-99 have been fixed as follows, and Candidates are required to assemble in the Examination Hall at the University a quarter of an hour before the time fixed for examination.

PROFESSIONAL EXAMINATIONS UNDER OLD REGULATIONS.

Candidates are required to enter their names and to pay the fees for the Examinations at the Matriculation Office, University (Old) Buildings, at the stated periods, and afterwards, at the stated periods, to exhibit their Certificates and Matriculation Cards at that Office. Certificates only will be received as evidence of attendance. *See Regulations as to entering for Professional Examinations, page* 371.

First Professional Examination.

1899.

Mar. 7. Tues. Names to be given in, and Fees paid *on or before* this date.

„ 24. Fri. Certificates to be examined.

„ 25. Sat. Practical Chemistry begins at hours to be announced. (Also on subsequent days if necessary).

Written Examination.[1]

„ 27. Mon. Chemistry, 10

„ 28. Tues. Zoology, 10; Botany, 1.

July 7. Fri. Names to be given in, and Fees paid *on or before* this date.

[1] See footnote 1, page 371.

1899.		
July 14.	Fri.	Certificates to be examined.
,, 15.	Sat.	Practical Chemistry begins at hours to be announced. (Also on subsequent days if necessary).
		Written Examination.[1]
,, 17.	Mon.	Chemistry, 10.
,, 18.	Tues.	Zoology, 10; Botany, 1.
		SECOND PROFESSIONAL EXAMINATION.
Mar. 13.	Mon.	Names to be given in, and Fees paid *on or before* this date.
,, 25.	Sat.	Certificates to be examined.
		Written Examination.[1]
,, 30.	Thur.	Anatomy, 10; Physiology, 1.
,, 31.	Fri.	Materia Medica, 10.
April 8.	Sat.	Pathology, 10.
July 13.	Thur.	Names to be given in, Certificates shown, and Fees paid for the Examination in July *on or before* this date.
,, 15.	Sat.	Certificates to be examined.
		Written Examination.[1]
,, 20.	Thur.	Anatomy, 10; Physiology, 1.
,, 21.	Fri.	Materia Medica, 10.
,, 25.	Tues.	Pathology, 10.
		FINAL PROFESSIONAL EXAMINATION.
April 18.	Tues.	Names to be given in, and Fees paid *on or before* this date.
,, 19.	Wed.	Certificates to be examined.
,, 20.	Thur.	
May 2.	Tu.	Clinical Medicine Examination begins.
June 21.	Wed.	Clinical Surgery Examination begins.
		Written Examination.[1]
June 19.	Mon.	Medicine, 10; Midwifery, 1.
,, 20.	Tues.	Surgery, 10; Medical Jurisprudence, 1.
		DEGREE OF M.D.[2]
April 30.		Theses to be given in, Certificates shown, and Fees paid *on or before* this date.
July 19.	Wed.	Names to be given in for Graduation and Registration Fee (if not previously registered) paid *on or before* this date.
,, 29.	Sat.	GRADUATION CEREMONIAL at 10 A.M. Graduands are required to assemble at 8.45 A.M.[3]

[1] See footnote 1, page 371.

[2] See footnote 2, page 373.

[3] See *N.B.*, page 370.

DOCTORS OF MEDICINE

WHO HAVE BEEN AWARDED GOLD MEDALS FOR THEIR THESES FROM 1889 TO 1897 INCLUSIVELY.[1]

1889.

Herbert H. Ashdown, England
John W. Ballantyne, Scotland
Arthur J. M'D. Bentley, England
Kenneth M. Douglas, Scotland
Thomas A. Helme, England
Henry Alexis Thomson, Scotland
Joseph Tillie, Scotland
Herbert F. Waterhouse, England

1890.

Joseph Griffiths, Wales
Robert Muir, Scotland
George Edmund Pierez, Ceylon
W. G. A. Robertson, Scotland
Arthur Robinson, England
John David Williams, Wales

1891.

Edmund W. W. Carlier, England
Vaughan Berkeley Harley, England
David Hepburn, Scotland
Alexander Miles, Scotland
James Ritchie, Scotland
George Neil Stewart, Scotland
John Clarence Webster, Canada

1892.

George Sandison Brock, Scotland
Alex. Lockhart Gillespie, Scotland
William Aldren Turner, Scotland
Arthur John Whiting, England
Theodore Stacey Wilson, England

1893.

Francis Darby Boyd, Scotland
James Samuel Risien Russell, Demerara
James Lorrain Smith, Scotland
John Cleasby Taylor, England
William Ernest Francis Thomson, Scotland

1894.

Lewis Campbell Bruce, Scotland
William Menzies Hutton, Scotland
Gustav Mann, India
James Acworth Menzies, Scotland
John Douglas Stanley, Ireland

1895.

Frank Leigh Ehrke, England
Wilfred Vincent Miller Koch, Ceylon
James Ritchie, Scotland
Andrew Walker, Scotland

1896.

Robert Swan Aitchison, Scotland
William Elder, Scotland
Robert Alexander Fleming, Scotland
Claude Buchanan Ker, England
John Macpherson, Scotland
Thomas Hugh Milroy, Scotland
George Robert Wilson, Scotland

1897.

Friedrich Wilhelm Eurich, M.D., Saxony
William Edward Fothergill, M.D., England
Thomas Alexander Wemyss Fulton, M.D., Scotland
David Arthur Welsh, M.D., Scotland

[1] The names of those who received Gold Medals prior to 1859 will be found in the List of Graduates in Medicine of the University of Edinburgh since its foundation, published in 1867, and the names of those who received Gold Medals from 1859 to 1888, both years included, will be found in the Historical Appendix to List of Graduates, published in 1889, pp. 128, 129.

DOCTORS OF MEDICINE WHO GRADUATED ON 31ST JULY 1897, WITH THE TITLES OF THEIR THESES.

*** *Obtained Gold Medals for their Dissertations.*

** *Deemed worthy of competing for Gold Medals.*

* *Commended for their Dissertations.*

* Sol Jervois Aarons, Australia, M.B., C.M., 1895. One hundred Gynæcological Cases: a Clinical Study.

Charles Macarthur Allan, Scotland, M.B., C.M., 1887. Chronic Ulcer: its Complications, its Allied Diseases, and their Treatment.

James Brown Bird, Scotland, M.B., C.M., 1890. The Treatment of Simple Goitre; with Introductory Remarks.

James Murdoch Brown, Scotland, M.B., C.M. (with First-Class Honours), 1874. A Clinical Study of Trichocephalus Dispar.

5** William Hartley Bunting, England, M.B., C.M., 1890. Some Notes on Ptosis of the Eyelid; with a Consideration of its Cause, and its Diagnostic Value as a Symptom.

* John Ferguson Carruthers, Scotland, M.B., C.M., 1892. Epidemic of Diphtheria in the Wildmore Fen of Lincolnshire during the years 1893-94.

* Thomas Aldous Clinch, England, M.B., C.M., 1893. The Arthropathic Dystrophies: An Essay, Historical, Experimental, and Philosophical.

* Alexander Dall (M.A.), Scotland, M.B., C.M., 1894. Uric Acid: its Etiology, Physiology, Pathology, and Treatment, as far as is suggested by the Previous Enquiry.

Samuel Davidson, Scotland, M.B., C.M., 1893. Some Observations on Herpes Zoster (or Zona).

10* Richard Davies, England, M.B., C.M., 1892. Rheumatoid Arthritis.

Thomas Harrison Davison, M.B., C.M., 1883. Notes on Pathology of Embolism.

John Josiah Douglas, Scotland, M.B., C.M., 1889. Osteitis Deformans.

* John Buchanan Duff, Scotland, M.B., C.M. (with First-Class Honours), 1893. Hepatic Disease dependent upon Carcinoma, with special reference to difficulties in Diagnosis.

James Churchill Dunn, New Zealand, M.B., C.M., 1893. Adenoids.

15 Samuel Edgerley (M.A.), Scotland, M.B., C.M., 1891. The Circulatory System in Mental Disease.

*** Friedrich Wilhelm Eurich, Saxony, M.B., C.M. (with Second-Class Honours), 1891. Studies on the Neuroglia (Human and Comparative).

Rufus Easson Evans, England, M.B., C.M., 1892. Study of a Common Cold, and similar febrile states.

* John Hoggan Ewart, India, M.B., C.M., 1894. An Experimental Study of the Normal Rapidity of the Ankle Clonus, Superficial and Deep Reflexes, together with Observations on the Variations of the latter under the Influence of various Cerebro Spinal Affections.

Francis Harold Fairweather, England, M.B., C.M., 1894. An Analysis of Ninety-nine Cases of Pulmonary Tuberculosis.

20 Arthur Graham Foljambe Forster, England, M.B., C.M., 1894. Peripheral Neuritis, produced by Arsenic in the Treatment of Chorea.

Arthur Foster, England, M.B., C.M., 1893. The Etiology of Malignant Disease of the Uterus.

*** William Edward Fothergill, (M.A., B.Sc.), England, M.B., C.M. (with First-Class Honours), 1893. Placental Structures retained in Utero and their ultimate fate, with special reference to the so-called Deciduoma Malignum.

* Hugh Ernest Fraser (M.A.), Scotland, M.B., C.M., 1891. Chlorosis, the Anæmia of Adolescence: its Symptoms, Causation, Nature, and Treatment; with Records, and Analyses of some Clinical Cases.

*** Thomas Alexander Wemyss Fulton, Scotland, M.B., C.M. (with First-Class Honours), 1884. The Maturation of the Pelagic Ovum of Teleosteans, and its Relation to certain Phenomena in the Life-history of the Species.

25 James Albert Gibson, Scotland, M.B., C.M., 1889. Tubercular Arthritis of the Sacro-iliac Synchondrosis.

Thomas Anderson Glover, Scotland, M.B., C.M., 1894. An Account of Graves' Disease, with a Critical Enquiry into the nature of the Disease.

* Edward Milliken Goldie, England, M.B., C.M., 1890. One hundred Cases of Rheumatoid Arthritis.

* Edmund Henri Gonin, England, M.B., C.M., 1890. Chronic Pulmonary Indurations.

* George Douglas Gray, Scotland, M.B., C.M., 1894. Symptomatic and Idiopathic Insomnia; its Etiology and Treatment.

30* Thomas Arthur Green, England, M.B., C.M., 1890. Acute Ascending Paralysis.

William Herbert Gregory, England, M.B., C.M., 1892. Migraine.

* Robert Grieve, England, M.B., C.M., 1894. Hysteria, with reference to its occurrence amongst the English Working Classes.

John Howell Knight Griffiths, Wales, M.B., C.M.,

1895. Thyroid Medication.

Arthur Erskine Herbert Cornelius Hallen, Scotland, M.B., C.M., 1889. Diphtheria: Modern Progress in its Recognition and Treatment.

35 Frederic Pollington Hearder, Wales, M.B., C.M., 1889. An Analysis of One hundred and thirty-one Male Criminal Lunatics admitted to the West Riding Asylum, Wakefield, during the years 1884-96 inclusive.

* Ian Dalrymple Clark Howden, Scotland, M.B., C.M., 1895. An Investigation into the Method of Treatment for Chronic Diseases of the Heart by Physical Exercises.

* Adam Jameson, Australia, M.B., C.M., 1883. Malarial Fevers in relation to their parasites.

Thomas Johnstone (M.A.), Scotland, M.B., C.M., 1885. Review of Eight hundred Cases of Clinical Midwifery.

** Thomas Bernard Kenny, British West Indies, M.B., C.M., 1894. Frambœsia, or Yaws.

40 James Kirk, Scotland, M.B., C.M., 1895. Adenoid Tissue and Certain Morbid Changes; a Comparative *resumé*.

* Robert Knox, Scotland, M.B., C.M., 1892. Observations on the Pulse.

Francis Kraemer (M.A.), Hungary, M.B., C.M., 1885. A Contribution to the Clinical Study of Bronchial Asthma.

* John Adolphus Laing, New Zealand, M.B., C.M., 1894. A Contribution concerning Paracentesis.

* Cyril Lewis, Wales, M.B., C.M., 1891. Hæmoptysis in Phthisis: a Clinical Study.

45** Frederick John M'Cann, Scotland, M.B., C.M. (with Second-Class Honours), 1888. The Gonococcus, and its relation to the Diseases of Women.

John William Macdonald, Nova Scotia, M.B., C.M., 1871. Bronchial Hæmorrhage.

Angus Vallance Macgregor, Scotland, M.B., C.M., 1892. Appendicitis.

George Scott Macgregor, Scotland, M.B., C.M., 1888. Syphilitic Meningo-Myelitis.

* Henry Deedes Nutt Mackenzie, England, M.B., C.M., 1893. The Serum-Therapy of Pyogenic Affections.

50 John Coull Mackenzie, Scotland, M.B., C.M., 1894. Rickets.

* George Henry Masson, West Indies, M.B., C.M., 1895. The Clinical Relationships of Multiple Pseudoneuromata with Cutaneous Pigmentation and Dermatofibromata, and the various other manifestations grouped under the heading of Generalised Neurofibromatosis.

* Roderick Murdoch Matheson, Scotland, M.B., C.M., 1893. Empyema and its Treatment.

George Symers Mill, Scotland, M.B., C.M., 1889. Personal Study of Plumbism.

** William Morrison (B.Sc.), Scotland, M.B., C.M., 1881. Climate and Life in Manchuria.

55 James Hay Murray, Scotland, M.B., C.M., 1892. Some recent advances in the Practice of Minor Surgery.

Alfred James Meyrick Paget, England, M.B., C.M., 1895. Neuralgia and its Regional Treatment, with a Special Operation at the Foramen Ovale.

James Pearse, England, M.B., C.M., 1893. A Consideration of some points in the Vaccination Controversy.

Tom Pettey, England, M.B., C.M., 1894. The Operative Treatment of High Myopia.

Andrew Philip, Scotland, M.B., C.M., 1893. Six Consecutive Cases of Enteric Fever treated with Peroxide of Hydrogen.

60 George Wilfred Pollard, England, M.B., C.M., 1892. Seventeen Cases of Congenital Malformation of the Rectum and Anus, with Remarks on the Pathology and Treatment of the Condition.

George Loraine Kerr Pringle, Scotland, M.B., C.M., 1893. The Tonsils in Health and Disease.

James Carson Rattray, Scotland, M.B., C.M., 1888. Abortion, and the Vulsellum Forceps as a Rapid Uterine Dilator.

John Kildahl Richards, Australia, M.B., C.M., 1894. Hydatid Disease, with special reference to its Etiology and Treatment.

Edward Robinson, England, M.B., C.M., 1893. Influenza: its History, Pathology, and Clinical Features, with special reference to Pneumonia as a Complication.

65* John Grimmond Smith, Scotland, M.B., C.M., 1891. Seven hundred Cases of General Paralysis of the Insane.

* James William Somerville, Scotland, M.B., C.M., 1887. Sewage Disposal.

Arthur Paget Steavenson, England, M.B., C.M., 1893. Burns and Scalds.

* John Steed, England, M.B., C.M. (with Second-Class Honours), 1893. Chlorosis and Dyspepsia: with some Remarks on the Value of various Methods of Chemical and Physical Diagnosis of Diseases of the Stomach.

** James Purves Stewart (M.A.), Scotland, M.B., C.M. (with First-Class Honours), 1894. (1) The

Diagnosis of Tumours of the Lateral Lobe of the Cerebellum. (2) Experimental Observations on the Crossed Adductor Jerk.

70 Gavin Stiell, Scotland, M.B., C.M., 1891. Dyspepsia.

Daniel Gibson Pearce Thomson, Scotland, M.B., C.M., 1883. The Treatment of Ulcers by Oxygen Gas.

William Thyne (M.A.), England, M.B., C.M., 1891. Moveable Kidney; an Enquiry into its Frequency; with Remarks on the Etiology, Symptoms, Diagnosis, and Treatment.

* Francis Ward, England, M.B., C.M., 1894. Graves' Disease: its Pathology and Treatment; with Cases.

*** David Arthur Welsh (M.A., B.Sc.), Scotland, M.B., C.M. (with First-Class Honours), 1893. Concerning Parathyroid and Pituitary Glands: An Anatomical, Pathological, and Experimental Study.

75* Harry Whittome, England, M.B., C.M., 1892. A Criticism on the Pathology of Epilepsy.

** John Mackie Whyte (M.A.), Scotland, M.B., C.M., 1882. Four Cases of Friedreich's Ataxia, with a Critical Review of recent literature on the Subject.

Alexander Whytt, Scotland, M.B., C.M., 1894. The Report of the Royal Commission appointed to enquire into the Subject of Vaccination, 1896.

Eugene Stephen Yonge, England, M.B., C.M., 1891. Teacher's Nodes of the Vocal Cords, and allied Morbid Conditions due to excessive use of the Voice.

James Younan, India, M.B., C.M., 1890. Congestion and Anæmia of the Brain.

80* Meredith Young, England, M.B., C.M., 1892. Clinical and Statistical Observations on One hundred and fifty Cases of Small-pox and Two hundred and fifteen Cases of Vaccination.

23RD OCTOBER 1897.

* Roderick Murdoch Matheson, Scotland, M.B., C.M., 1893. Empyema and its Treatment.

13TH APRIL 1898.

William Rogers, M.B., C.M., 1892. Some Introductory Notes on the Physiology and Pathology of Uric Acid in relation to the Gouty Process.

* Edward Hope Ridley, M.B., C.M., 1891. Post-Scarlatinal Diphtheria.

BACHELORS OF MEDICINE AND MASTERS IN SURGERY (M.B., C.M.) WHO HAVE PASSED THE EXAMINATIONS WITH HONOURS FROM 1889 TO 1897, BOTH YEARS INCLUDED. [1]

1889.

Class I.

Robert Oswald Adamson (M.A.), Scotland
John William Crerar, Scotland
William Fred. Farquharson, Scot.
James Lackie, Scotland
Jas. Hill Williamson Laing (M.A., B.Sc.), Scotland
Hamilton Graham Langwill, Scot.
Alexander Maclean, Scotland
Eustace G. Pilgrim, Barbados
Wm. Gordon Woodrow Sanders, Scotland
James Andrew Thyne, Scotland
George Wilkinson, England

Class II.

Robert Dunlop Reid Allison, Scot.
William Everett, England
George Alfred Walter, England
Colin Gordon, England
Ewan John Maclean, Wales
James Monteith, Scotland
Benjamin Sweeten, Scotland
C. N. C. Wimberley, Scotland

1890.

Class I.

Charles James Whitehead Dixon, England
Carstairs Cumming Douglas, Scot.
Gerald Fitzgerald, Scotland
Robert Main Horne, Scotland
Colin Forbes Lees, Scotland
William Paterson, Scotland
George William Thompson, La Plata
William Kerr Walker, Scotland

Class II.

Ed. H. Alexander, New Zealand
Robert Brown, Scotland
John Wheeler Dowden, Ireland
George Balfour Marshall, Scotland
Arnold W. Williams, England

1891.

Class I.

John Wardle Bone, England
Wm. Blackley Drummond, Scot.
George Elder, Scotland
Edward Barnard Fuller, Africa
Henry Baker Hall, England
George Hennan, Scotland
Herbert Saunders Wansbrough Jones (B.Sc.), Wales
Harry Rainy (M.A.), Scotland

Class II.

Robt. J. Ashton (B.A.), England
Robert Cran, Scotland
Frederich Wilhelm Eurich, Saxony
David J. Mackenzie (M.A.), Scot.
John Orr, Scotland
David Stuart, Scotland
Wm. J. Walker (B.A.), Australia
Neish Park Watt (M.A.), Scotland
John Thos. Wilson, Tasmania

1892.

Class I.

Alexander Brownlie, Scotland
Charles Cromhall Easterbrook, (M.A.), England
George Home, New Zealand
Lim Boon Keng, Singapore
Robert Murray Leslie (M.A., B.Sc.), Scotland
Donald Macaulay (M.A.), Scot.

Class II.

Alexander Douglas (M.A.), Eng.
Daniel Charles Edington, Scot.
John James Evans, Wales
Arthur Fells, England
James Stewart Fowler, Scotland

[1] For names of those who received the Degrees with Honours prior to 1889, see Historical Appendix to List of Graduates of the University, published in 1889, pp. 129-132.

Robert Walker Gray, Scotland
Robert John Johnston, Scotland
Geo. Wm. F. Macnaughton, Scot.
Philip Oscar Malabre, Jamaica
Peter William Shaw, Scotland
Alfred George Talbot (B.A.), New Zealand
George Templeton, Scotland

1893.

Class I.

Charles Crerar, Scotland
John Buchanan Duff, Scotland
Alex. M. Easterbrook, Scotland
Wm. E. Fothergill (M.A., B.Sc.), England
Robert Hutchison, Scotland
Robert H. Makgill, Scotland
Jas. V. Paterson, M.A., Scotland
David W. Sutherland, Australia
Hugh Walker (M.A.), Scotland
D. A. Welsh (M.A.), Scotland

Class II.

William Randolph Center, Scot.
Robert Craig Dun, Scotland
George Harry Dupont, England
Charles Alfred Hogg, Tasmania
Charles Kerr, Scotland
James G. Macnaughton, Scotland
W. M'D. Selby, Scotland
St John Stanwell, England
John Steed, England
John Tennant (M.A.), Scotland
John Brown Yeoman, Scotland

1894.

Class I.

James Martin Beattie (M.A.), New Zealand
Evan John Hewat Fraser, England
George Brooke French, England
Thomas Gibson (M.A.), Ireland
John Rutherford Gilmour, Scotland
Neil MacVicar, Scotland
William Anderson Stephen (M.A.), Scotland
James Purves Stewart (M.A.), Scotland

Class II.

Robert William Beesley, England
Robert Ward Briggs, England
Alexander Keith Campbell, Scot.
Thomas H. C. Derham, England
Charles Francis Lassalle, W. Indies
James Donald Macrae, Scotland
Hezlett Hamilton Marshall, Australia
Arthur Maxwell Nicholson Pringle, Scotland
Walter Russell Strapp, Natal

1895.

Class I.

Joseph Edward Bowes, England
John Forbes (M.A.), Scotland
William John Garbutt, England
Rhodes Haygarth, England
Andrew Robertson Wilson (M.A.), Scotland
William De Wever Wishart, British Guiana

Class II.

James Gray, Scotland
Albert Lewis Husband, England
Robert MacWilliam Leith, Cape Colony
William Lillie, India
David Rankine (M.A.), Scotland
David Waterston (M.A.), Scotland
James Rodger Watson (M.A., B.Sc.), Scotland

1896.

Class I.

William Haining Carse, Scotland
John Eason, Scotland
Percy James Henderson, Scotland
Percy Theodore Herring, England
John George Patrick Murray, England
Alexander Corsar Sturrock (M.A.), Scotland

Class II.

John Thomas Hewetson, England
Alexander Petrie Lowe, Scotland
Arthur David Yule, Scotland

1897.

Class I.

Harold Sherman Ballantyne (B.Sc.), Scotland
William Frederic Harvey (M.A.), India
George Carmichael Low (M.A.), Scotland
Edwin Matthew (M.A.), Scotland

Class II.

William Finlay (Bach.-ès-Lett.), Scotland
James Graham, Scotland
Evan Harries Jones, Wales
Leslie Kingsford, New Zealand
Andrew Hutton Watt, Scotland

BACHELORS OF MEDICINE AND BACHELORS OF SURGERY (M.B., Ch.B.), WHO HAVE PASSED THE EXAMINATIONS WITH HONOURS, 1897.

1897.

Class I.

Charles Miner Cooper, England
John Smith Fraser, Scotland
William Hamilton, England
James Duncan Slight (M.A.), Scotland

Class II.

Bertram Cecil Robert Aldren, England
Theodore Robert William Armour, Scotland
John Malcolm, Scotland
John William Struthers, Scotland

BACHELORS OF MEDICINE AND MASTERS IN SURGERY (M.B., C.M.).

31ST JULY 1897.

Small CAPITALS *indicate First-Class Honours.*

Italics, *Second-Class Honours.*

Frederick Anderson, Scotland
Richard William Anthony, India
Hugh Llewellyn Apthorp, England
James Reginald Atkinson, England
5 HAROLD SHERMAN BALLANTYNE (B.Sc.), Scotland
Bertram Mayhew Bone, England
Satis Chandra Bose, India
Francis Wesley Broadbent, England
Smith Osborne Browne, Ireland
10 Charles John Caddick, England
Lawson Millar Cairns, Scotland
Selwyn Gurney Champion, England
Manmatha Nath Chaudhuri, India
George Lyall Chiene, Scotland
15 Bernard Ramsay Craig Christie, Scotland
William Cobden-Rowlands, Wales
Agnes Irene Sinclair Coghill, Scotland
Lewis Archibald Crooks, Jamaica
Thomas Walter Alfred Daman, England
20 William Gordon Donald, Scotland
Stanley Ducat, Scotland

Robert William Thomas Ewart, Scotland
Stewart Faed, Scotland
William Finlay (Bach.-ès-Lett.), Scotland
25 John George Forbes, Scotland
Harry Fowler, Scotland
Robert Gellatly, England
John Frank Gibbon, Trinidad
William Herbert Goldie, New Zealand
30 *James Graham*, Scotland
Thomas Parker Greenwood (B.Sc.), England
James Grieve, England
WILLIAM FREDERIC HARVEY (M.A.), India
Joseph Chambers Hastings, Ireland
35 John Henderson, Ireland
Edwin Henry Irwin, Ireland
Andries Lourens de Jager, South Africa
John Boyd Jamieson, Scotland
Thomas Nicol Johnston, Scotland
40 Charles Brand Johnstone, England
David Thomas Rocyn Jones, England
Evan Harries Jones, Wales
Leslie Kingsford, New Zealand
Gavin Liddell (B.A.), New Zealand
45 Lewis Stephens Lyne Liddell, Scotland
Arthur Weir Limont, England
GEORGE CARMICHAEL LOW (M.A.), Scotland
John Scott Lyle, Ireland
David M'Askie, Ireland
50 Mary Ross M'Dougall, Scotland
James John Lister Macfarlane, Scotland
Charles Clarke Macmillan, Australia
Angus Duncan Macpherson (M.A.), Scotland
Harold Malcolmson, Ireland
55 Mack Walter Manuk, India
EDWIN MATTHEW (M.A.), Scotland
Arthur Grove Naylor, England
Thomas Matheson Ness (M.A.), Scotland
John Newington, England
60 James Nicoll, Scotland
Harold Nuttall (M.A.), England
James Harold Patterson, Tasmania
Edward Laurence Phillips, England
Winifred Jane Pierce, Ireland
65 Peter Rattray, Scotland
Robert Railston Richardson, England
John Rees Roberts (B.Sc.), Wales
Edward Charles Robertson-Fullarton, Scotland
Isidore Eugene Rosenstein, Egypt
70 Thomas Arthur Ross, Scotland
Robert Selby, Scotland
Dosabhoy Cursetjee Sethna, India
James Adam Schoolbread, England
Ethel Louie Starmer, England
75 Thomas Herbert Stevenson, Ireland
James Prain Sturrock (M.A.), Scotland
George Crewdson Thomas, England
Isabella Beattie Venters, Scotland
Frederick James Walden, Australia

80 James Robert Hall Walker, Scotland
Andrew Hutton Watt, Scotland
Adam Ramsay Wight, Ireland
Walter Galbraith Wight, Ireland
Maurice Beresford Wright, England.

23RD OCTOBER 1897.

Frederick William Allkin, England
Ernest Lincoln Borthwick, Australia
David Elliot Dickson, Scotland
Joseph Dominie Doherty, Australia
5 David Leonard Fisher, Ireland
Frank Strachey Harper, England
William Herbert Joseph Hollinshead, Australia
Neil Thomson Kerr, Scotland
Thomas Campion Lauder, Ireland
10 Alexander Morison Little, Scotland
John Ewart Martin, England
Sarat Kumar Mullick, India
Samuel Knight Norris, England
George Hearn Parry, England
15 George William Payne, Barbadoes
Thomas Bullions Schoolbread, England
William Brown Thain, Scotland
John Thomarson, England
Robert Thornton, Scotland
20 George Ryan Twomey, Ireland
Syed Mohamed Varis, India
George Fyfe Waterston, Scotland

BACHELORS OF MEDICINE AND BACHELORS OF SURGERY (M.B. AND Ch.B.).

31ST JULY 1897.

Small CAPITALS *indicate First-Class Honours.*

Italics, Second-Class Honours.

Bertram Cecil Robert Aldren, England
Victor George Alexander, Scotland
Theodore Robert William Armour, Scotland
Thomas Biggam, Scotland
5 Robert Barclay Black, Scotland
Henry Francis Wynne Boland, Scotland
Leonard Boyer, England
William Burns (M.A.), Scotland
David Clow, Scotland
10 CHARLES MINER COOPER, England
Llewelyn Wynne Davies, Wales
Joseph Espie Dods, Australia
Granville Landsborough Findlay, Natal
James Forrest, England
15 Gideon Fourie, South Africa

William Hope Fowler, Scotland
JOHN SMITH FRASER, Scotland
Andrew Gibson, Scotland
William Gorrie, Scotland
WILLIAM HAMILTON, England
Wroughton Gerald Heath, West Indies
Rowland Hill, England
Guy Bertram Hollings, England
Patrick Kinmont, Scotland
Frederick Oakley Lasbrey, England
Alexander Bremner MacCarthy, Ireland
Thomas John Tyndale M'Hattie, Scotland
Ian Lamont MacInnes, Scotland
James Wilson M'Intosh, Scotland
William Ernest M'Kechnie, Scotland
John Malcolm, Scotland
William Martin, Ireland
Francis Watson More, Scotland
Edward Fox Macleod Neave, Scotland
John Hunter Park Paton, Scotland
Alexander Howard Pirie (B.Sc.), Scotland
Robert George Riddell, Scotland
JAMES DUNCAN SLIGHT (M.A.), Scotland
William Maule Alexander Smith, Scotland
William Ralph Somerset, England
John William Struthers, Scotland
George Alves Vincent, Trinidad
Charles Percivale Bligh Wall, England
William Mackenzie Wilson, England

23RD OCTOBER 1897.

Alexander John Travers Allan, Scotland
James Duff Scott Milln, Scotland

Fellowships, Scholarships, Bursaries, and Prizes in Medicine.

I.—FELLOWSHIPS.

I.—THE SYME SURGICAL FELLOWSHIP.

This Fellowship, of the annual value of £100, 5s. 10d., and tenable for two years, is open to award to the Bachelor of Medicine and Master in Surgery, or Bachelor of Medicine and Bachelor of Surgery, of not more than three years' standing, who, in the opinion of the Examiners, has passed a creditable examination for these degrees, for the best Thesis on a Surgical subject giving evidence of original research, or practical talent, whether such Thesis be given in for Graduation or otherwise. The next award may be at the Graduation Ceremonial in August 1899. *See* Deed of Foundation, at p. 310 of CALENDAR for 1872-73.

II. THE GOODSIR MEMORIAL FELLOWSHIP.

This Fellowship was founded in 1872 by the subscribers to the fund for a memorial of the late Professor John Goodsir, and is for the encouragement of the study of Anatomy and Physiology. It is of the annual value of £100, tenable for two years, and is open to all Graduates in Medicine of the University of not more than three years' standing at the time of the competition, and to Licentiates of the Colleges of Physicians or Surgeons of Edinburgh of a like standing, who have attended within the University the same number of classes as are required for the Degree of M.B. It is awarded for the best Essay or Treatise containing results of original investigations in Anatomy, Human and Comparative, either Normal or Pathological, or in Experimental Physiology; Candidates may be examined *viva voce* or otherwise on the subject of their Essays or Treatises if the Examiners shall deem this desirable.

The next award may be made in August 1899, and competing Dissertations must be lodged with the Professor of Anatomy not later than the 30th April previously. *See* Deed of Foundation at p. 314 of CALENDAR for 1872-73.

III.—THE LECKIE-MACTIER FELLOWSHIP.

The Leckie-Mactier Fellowship, of the annual value of £80, is awarded to Bachelors of Medicine of not more than three years' standing, and is tenable for three years. The examinations comprise written reports and commentaries on medical, surgical, and gynecological cases in the University Wards in the Royal Infirmary, and written examinations in Midwifery, Medical Jurisprudence, and Public

Health; also oral examinations in Medicine, Surgery, Midwifery, Medical Jurisprudence, and Public Health. Every holder of the Fellowship must, before the expiry of his tenure, transmit to, and if required read publicly in presence of the Medical Faculty, a communication embodying the result of original observation or historical research in some department of medicine. Next appointment may be made in November 1898. *See* Deed of Foundation at p. 365 of CALENDAR for 1880-81.

1895. *Robert Hutchison, M.B., C.M.*

IV. FREELAND BARBOUR FELLOWSHIP.

This Fellowship is of the value of £100, and is open to award, in each alternate year, to the Bachelor of Medicine and Bachelor of Surgery who has gained the highest collective marks in Anatomy, Physiology, and Pathology in the Professional Examinations, and who is prepared to devote not less than one year to original research in Midwifery or diseases of women, in any of the Laboratories or Practical Departments of the University of Edinburgh. The next award will be made in July 1901. *See* Deed of Foundation at page 517 of CALENDAR for 1889-90.

1898.

THE WILLIAM DICKSON TRAVELLING FUND.

This is a fund for the purpose of assisting Graduates of any Faculty, of not more than three years' standing, to travel for the purpose of study or research. For particulars, see page 178.

THE EARL OF MORAY'S BEQUEST FOR THE PROMOTION OF ORIGINAL RESEARCH.

All Graduates and other Members of the University, "or other persons who have given satisfactory proof of General Education and fitness to engage in some special study or research," may apply for grants from this fund. In so far as the subject of the Research admits, the investigation shall be conducted in the Buildings of the University. For further particulars, see page 178. *See* Regulations, page 428 of CALENDAR for 1897-98.

THE SWINEY LECTURESHIP ON GEOLOGY.

This Lectureship is in the patronage of the Trustees of the British Museum, is of the annual value of £144, and is open to Graduates in any of the Faculties of this University who have obtained their Degrees after Examination. For further particulars, see page 266.

II.—SCHOLARSHIPS.

I.—ETTLES SCHOLARSHIP IN MEDICINE.

This Scholarship was founded in 1868 by Miss Mary Ettles of Inverness, and is of the annual value of about £31, 5s. It is awarded

annually to the Bachelor of Medicine and Master in Surgery of the University of Edinburgh, whom the Faculty of Medicine may consider the most distinguished of that year. *See* Deed of Foundation, at page 242 of CALENDAR for 1868-69.

1897. *Edwin Matthew, M.A., M.B., C.M.*

II.—SIBBALD MEDICAL SCHOLARSHIP.

This Scholarship is of the annual value of £40. *First,* The Scholarship is bestowed on, and held by, a Student in the Faculty of Medicine in the University of Edinburgh, *who does not hold any other Scholarship or Bursary,* and is tenable for three years, during each year the Scholar must complete an *Annus Medicus* required from Candidates for the degree of Bachelor of Medicine. *Second,* It is bestowed upon the Student obtaining the highest place by Competitive Examination, and is open to all Candidates who have not previously been Students of Medicine in any other School or University, and who have attended Medical Classes in the University of Edinburgh, for *not less* than one Winter and one Summer Session, and for *not more* than one Winter and two Summer Sessions. The Competitive Examination is in Chemistry, Botany, Natural History, and Physics, and is conducted in such manner as the Senatus Academicus may, in concurrence with the Trustees, prescribe. The next competition may take place in October 1900. Application to be made to Messrs MACKENZIE, INNES & LOGAN, W.S., 23 Queen Street, Edinburgh.

1897. *Robert Wilson Buchanan, M.A.*

III.—THOMSON SCHOLARSHIP.

The Thomson Scholarship, value £40, tenable for four years, open to matriculated students commencing their first Winter Session in Medicine. The examination is on Botany, Zoology, and Elementary Mechanics. The Scholarship is awarded to the candidate who shall obtain the highest number of marks in the examination. The Trustees, however, reserve power to themselves to withhold the appointment should none of the candidates obtain a sufficiently high percentage of the marks in the examination. Candidates must send in their names to the agents for the Trust before the first day of October in the year in which there is a competition for the Scholarship. Students of the name of Thomson or Traquair, or those who are natives of the town or county of Dumfries, or of the city of Edinburgh, have a preference. The next appointment may be made in October 1898. For other particulars, application to be made to Messrs Traquair, Dickson & Maclaren, W.S., 11 Hill Street, Edinburgh.

1894. *James Masson.*

IV.—COLDSTREAM MEMORIAL MEDICAL MISSIONARY SCHOLARSHIP.

The Coldstream Memorial Medical Missionary Scholarship was founded in memory of the deceased John Coldstream, M.D., F.R.C.P.E. Value £25, and tenable for five years. The holder must be a first year's Medical Student, who intends to devote himself to the life of a Medical Missionary at home or abroad. He must be approved of by the awarders, and pass the preliminary examination before beginning his studies. Next award may be in 1901. A preference is given to students connected with the Edinburgh Medical Missionary Society. A full copy of the conditions can be had on applying to John P. Coldstream, W.S., care of Messrs Mill, Bonar & Hunter, W.S., 15 Hill Street, Edinburgh. *See* Conditions in CALENDAR for 1879-80, p. 357.

1896. *John Alfred Smith.*

V.-XI.—VANS DUNLOP SCHOLARSHIPS.

Seven Scholarships, of £100 each, tenable for three years. Not more than one at a time can be held by the same person. The successful candidates for each of these Scholarships will be required to continue their medical studies in this University during their tenure of their Scholarships, and to graduate as M.B. and Ch.B. *See* Excerpt from Will of Dr Vans Dunlop, p. 380 of CALENDAR for 1880-81.

V. *One* is awarded to the Candidate who, at either the March or the preceding October Medical Preliminary Examination, has obtained the highest number of marks in the Subjects required to enable him to appear for a Professional Examination, provided (1) that he has not already passed the said Preliminary Examination; and (2) that, in the event of his having passed an equivalent examination and presenting himself for the Medical Preliminary Examination, he shall waive all right to admission to the Faculty of Medicine except through the ordinary Medical Preliminary Examination of this University. The next award may be made in March 1899.

1896. *James G. S. Jamieson* } equal.
,, *Andrew Hunter* }

VI. *One* is awarded at the end of the First Winter of Medical Study to the Student who, after having attended for the first time within the University a Systematic Course of Lectures on each of the subjects of Chemistry, Anatomy, and Physics, and who has not previously attended any course in Chemistry, or Anatomy, or Physics, which qualifies for Degrees in Medicine, or for a Licence in Medicine or Surgery, shall obtain the highest number of marks in an Examination in these subjects, specially conducted for the purpose. The Subjects of Examination in Anatomy will include the Skeleton; Joints; Muscular System; Heart and Great Vessels; General Arrangement of the Nervous System;

Position of the Thoracic and Abdominal Viscera. The next award may be made at the end of March 1899.

1896. *George H. Hanna* } equal.
,, *Aleck Trotter* }

VII. *One* is awarded at the end of the first Summer Session of Medical Study to the Student who, after having attended for the first time within this University a Systematic Course of Lectures on each of the subjects of Botany and Zoology, and who has not previously attended any course in Botany or Zoology which qualifies for Degrees in Medicine, or for a Licence in Medicine or Surgery, shall obtain the highest number of marks in an Examination in these subjects specially conducted for the purpose. The next award may be made at the end of July 1899.

1896. *George Scott Carmichael.*

VIII. *One* is awarded at the end of the Second Winter of Medical Study to the Student who, after having attended within the University for the first time a Systematic Course in each of the subjects of Physiology and Surgery, and who has not previously attended a Course of Physiology or Surgery which qualifies for Degrees in Medicine, or for a Licence in Medicine or Surgery, shall obtain the highest number of marks in an Examination in these subjects specially conducted for the purpose. The Subjects of the Examination in Physiology will embrace the Histology and Physiology of the Simple Tissues, and of the Organs concerned in Nutrition. The whole subject of Nutrition will be included, and also Animal Heat. The next award may be made at the end of March 1899.

1896. *William John Barclay.*

IX. *One* at the beginning of the Fourth Winter Session of Medical Study to the Student who, after having attended within the University the Systematic and Practical Instruction in the subjects of Anatomy and Physiology, and, having passed the Second Professional Examination, shall obtain the highest number of marks in an Examination in these subjects specially conducted for the purpose. The successful Candidate will be required to continue his studies in this University during the first two years of his tenure of the Scholarship, and at the end of the second year to graduate as M.B. and Ch.B. ; and during the remaining year to prosecute original investigation in one or other of the Research Laboratories in the Faculty of Medicine. The next award may be made in October 1899.

1896. *George Lyon.*

X. *One* at the beginning of the Fourth Winter of Session Medical Study to the Student who, after having attended within the University a Systematic Course in the Subject of Materia Medica (including Pharmacology), and, having passed the Second Professional Examination, shall obtain the highest number of marks in an Examination in that subject specially conducted for the purpose. The successful Candidate will be required

to continue his studies in this University during at least two years of his tenure of the Scholarship, and at the end of the second year to graduate as M.B. and Ch.B.; and during the remainder of his tenure of the Scholarship to devote himself to original investigation in the Materia Medica Laboratory in the Faculty of Medicine. The next award may be made in January 1900.

1896. *D. B. Waters.*

Prox. access., A. C. M'Gilchrist.

XI. *One* to be awarded at the beginning of the Fifth Winter Session of Medical Study, to the Student who, after having attended within the University, the Systematic and Practical Courses in Pathology and the Systematic Courses in Medical Jurisprudence and Public Health, and having passed the Third Professional Examination, shall obtain the highest number of marks in an Examination in these subjects specially conducted for the purpose. The successful Candidate will be required to continue his studies and graduate as M.B. and Ch.B. in this University, during the first year of his tenure of the Scholarship, and to devote himself during the remainder of his tenure to original investigation in one or other of the Research Laboratories in the Faculty of Medicine. The next award may be made in October 1899.

1896. *John Malcolm.*

XII.—THE MURCHISON MEMORIAL SCHOLARSHIP.

This Scholarship consists of the annual proceeds of about £1000, awarded in alternate years in London and Edinburgh, for proficiency in Clinical Medicine. Candidates must be registered medical students who have attended for not less than five nor more than seven years at Hospitals and Classes at Edinburgh or London, recognised by the University of Edinburgh or the Royal College of Physicians of London. The competition in 1899 will be held in Edinburgh.

1898. *John Basil Page.*

(St Mary's Hospital School, London.)

XIII.—STARK SCHOLARSHIP IN CLINICAL MEDICINE.

This Scholarship of £112, less expenses, and tenable for one year, is for the encouragement of the study of Clinical Medicine. It is open to competition among all matriculated students of the University who are or have been in attendance at the University Class of Clinical Medicine, and to Bachelors of Medicine of the University of not more than eighteen months' standing who have attended this class. It is open every second year alternately with the competition in Edinburgh for the Murchison Memorial Scholarship. The Examination, oral and in writing, includes (*a*) Examination of Patients; (*b*) Questions on Therapeutics and Pathology; (*c*) Examination of Specimens. Each holder of the Scholarship is required to devote his time in the wards of the Professors of Clinical Medicine to original investigation or other work directly connected with Clinical Medicine; to report his proceedings every three months to the Pro-

fessors of Clinical Medicine; and, within a reasonable time after the expiry of his tenure of the Scholarship, to present to the Faculty of Medicine a written statement of the results of his investigations or other work. It cannot be held along with any other Fellowship, Scholarship, or Bursary in a Scottish University. The next Competition will take place in July 1900. *See* Deed of Foundation at p. 427 of CALENDAR for 1884-85.

1898. *John Forbes, M.A., M.B., C.M.*

XIV.—BUCHANAN SCHOLARSHIP.

This Scholarship, of the value of about £40, founded by Mrs Jane Jack or Buchanan, Moray Place, Edinburgh, is awarded annually to the Graduate in Medicine of the year who has shown the highest proficiency in Midwifery and Gynecology, as evidenced in (1) the Class Examinations of Midwifery and Diseases of Women and Children; (2) the Records kept by him of cases treated in the Gynecological Section of the University Class of Clinical Medicine in the Buchanan Ward of the Royal Infirmary, and (3) the Final Examination in Medicine for the Degree of M.B. The Scholar is required to act as non-resident Clinical Clerk in the University Gynecological Ward, and to give assistance in the Examination of Class Exercises. *See* Deed of Foundation, p. 707 of CALENDAR for 1894-95.

1897. *William Herbert Goldie, M.B., C.M.*

XV.—THE JAMES SCOTT SCHOLARSHIP.

This Scholarship, founded by Mrs Mary Ann Scott or Thomson of Hawick, of the value of £32, 10s., is awarded annually at the Graduation Ceremonial in Medicine in August for proficiency in Midwifery. The award is based upon the results of the Competitive Examinations in the Class of Midwifery, upon the character of the records of Cases of Midwifery attended by the Candidate at the Royal Maternity and Simpson Memorial Hospital, and upon the position obtained by him at the Final Examination for Degrees in Medicine. The Scholarship is for one year, but may, in special circumstances, be continued for another year. *See* Deed of Foundation, p. 410 of CALENDAR for 1883-84.

1897. *Charles Miner Cooper, M.B., Ch.B.*

XVI., XVII.—HOPE PRIZE SCHOLARSHIPS.

Two Hope Prize Scholarships in Chemistry, each of the annual value of about £30. For particulars, *see* under Scholarships in Science.

XVIII.—THE MOUAT SCHOLARSHIP IN THE PRACTICE OF PHYSICS.

This Scholarship, of the value of about £55, 4s. (partly in money and partly in the form of a bronze medallion), is awarded annually at the Graduation Ceremonial in Medicine, to the graduate in Medicine who shall have taken the highest place in the competitive Examinations in

the Class of Practice of Physic (Medicine) in this University, and in the Oral and Written Examinations in that subject in the Final Examination.

The Scholar shall be bound during his year of tenure to pursue the study of Medicine either as resident in an Infirmary or Hospital, or in the University of Edinburgh, or other University or Medical School at home or abroad, and to present, at the close of such year, to the Professor of Practice of Physic, or to the Senatus Academicus, a Report of the work he has done in such Infirmary, Hospital, University, or Medical School. The money part of the Scholarship will only be paid on the Senatus receiving a certificate from the Dean of the Faculty that the conditions of the Scholarship have been duly fulfilled.

XIX.—MACKAY SMITH SCHOLARSHIP IN CHEMISTRY.

This Scholarship is of the annual value of £25, tenable for two years, and is open for competition to Students who have attended the Class of Chemistry in this University. The successful Candidate is bound to attend the Class of Chemistry, or to prosecute the study of Chemistry in the University during at least one year of his tenure of the Scholarship, in such way as the Senatus Academicus may direct or approve. The next Examination will take place in March 1900.

1898. *S. A. Ellerbek.*

XX.-XXIII.—CRICHTON SCHOLARSHIPS FOR RESEARCH.

Four Scholarships, each of the value of £100, tenable for one year, with power of re-appointment for a second and for a third year, are open in rotation in the subjects of Anatomy, Physiology, Materia Medica, and Pathology, for the prosecution of Research by Graduates who have been Students of this University for not less than four years. The Scholarships in Anatomy and Physiology may be open in 1897-98. Candidates are required to submit a sufficient description of the work they propose to undertake to the Dean of the Faculty of Medicine on or before 1st September. The Examination is both written and practical, bearing on Research Work. See Regulations, page 750 of CALENDAR for 1895-96.

1898. *P. T. Herring, M.B., C.M.* (*Pathology*).

XXIV.—HOULDSWORTH SCHOLARSHIP.

This Scholarship, founded by the Houldsworth Trustees for the purpose of promoting Research in Pharmacology in the Department of Materia Medica in the University, is of the annual value of about £46, and tenable for one year, with power to re-elect for a second, or even a third year if good work is being done by the scholar. It is awarded to a graduate in, or student of medicine of, the University, after such

examination, competitive or otherwise, as may be deemed necessary. The scholar must, during his tenure, produce such evidence of his progress in Pharmacological investigation as may be required by the Professor of Materia Medica. For Deed of Foundation, see page 421 of CALENDAR for 1897-98.

1898. *E. F. Bashford.*

III.—BURSARIES.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patrons.
I.	1864	Dr Abercromby, Cape Town.	£20 0 0	1		£20 0 0	Governors of George Heriot's Trust.
II.	1871	Dr J. R. Sibbald's Trustees.	About (150 0 0	5	3	30 0 0	Trustees of Dr J. R. Sibbald.
III.	1873	Dr Mackie's Trustees.	60 0 0	2	2	30 0 0	Professors of Fac. of Med. in Univ., Edin.
IV.	1873	Mr Grierson of Ogscastle's Trustees.	60 0 0 20 0 0	3 1 1	3 2 1	20 0 0 10 0 0 10 0 0	Senatus.
V.	1878	Dr Andrew Thomson	200 0 0	8	4	25 0 0	Trus. of Dr Thomson.
VI.	1878	William Mackenzie	42 10 0	2	1	20 0 0	Senatus.
VII.	1878	John Aitken Carlyle	56 0 0	2	1	28 0 0	Senatus.
VIII.	1882	Mrs Ronald of Liverpool	80 0 0	2		About 40 0 0	Senatus.
IX.	16—	George Heriot. Remodelled 1887	480 0 0 About	6	4	30 0 0	Governors of George Heriot's Trust.
X.	1890	Major Robert Orr Crichton of Lynn, M.D.	500 0 0	10	4	50 0 0	Senatus Academicus.
XI.	1809	Dr Donald Grant, London.	180 0 0 About	2	4	90 0 0 About	Dr Grant's Trustees.
XII.	1846	John Jamieson, Edinburgh.	26 0 0	1	4	26 0 0	Principal and Two Professors.
XIII.	1883	Wm. Renton, Edinburgh.	19 19 6	1	1	19 19 6	Professors of Mathematics, Natural Philosophy, Chemistry, and Political Economy.
XIV.	1886	Richard Allan, Feuar, Kelso.	90 0 0	3	3	About 30 0 0	Trustees of R. Allan.
XV.	1889	Daniel Maclaurin, London.	62 10 0	1	4	62 10 0	Town Council.
XVI.	1897	M'Cosh (Graduates).	...	1	1	...	Senatus.
XVII.	1897	M'Cosh (Medical).	...	1	1	...	Senatus.

I. *Abercromby Bursary*—Open by competition, in the event of more than one candidate coming forward, to Students who have been educated in Heriot's Hospital School, and have finished their course as Heriot Bursars, to aid them in further prosecution of their studies for any of the learned professions. Students in the Faculty of Medicine to be always preferred. Candidates are referred to the Treasurer of the Heriot Trust, 20 York Place, Edinburgh, before 15th September.

II. *Sibbald Bursaries.*—These Bursaries, each tenable for three years, are available to Students in the Faculty of Arts, Medicine, Law, or Divinity, entering the University who have not previously attended any University in the United Kingdom or elsewhere, *and who do not hold any other Bursary or Scholarship,* but no objection to a Candidate that he has, during the previous Summer Session, attended any of the Classes in the University of Edinburgh required by the Faculties of Medicine or Law. The examination is the same as the Preliminary and Bursary Examination in the Faculty of Arts at the commence ment of each Winter Session. Application to be made to Messrs Mackenzie, Innes & Logan, W.S., 23 Queen Street, Edinburgh, before 15th September.

1897. *R. W. Buchanan.*

III. *Mackie Bursaries.*—These Bursaries are awarded to Students of Medicine of the University, one of which is open to Students who have completed their First Annus Medicus, and the other to Students who have completed their Second Annus Medicus, and who are, in the opinion of the Faculty of Medicine, in such pecuniary circumstances as to require assistance. In the event of no appointment having been made to either Bursary on any occasion when it is vacant, the Senatus may, on the recommendation of the Faculty of Medicine, appoint any Candidate to the vacant Bursary who has completed either his first or his second *Annus Medicus* and who otherwise satisfies the requirements of tenure. *Bursars* 1896, *first year,* Robert Affleck; *second year,* Y. A. Djedizian.

IV. *Grierson Bursaries.*—Candidates from the parishes of Crawford or Leadhills, about to commence their Medical Curriculum, who have passed in the University of Edinburgh a satisfactory examination in the preliminary subjects required by the Regulations for Graduation in Medicine, who have been diligent students, and who require pecuniary aid to enable them to pursue their studies, have a preference. In the case of more candidates than one, the Bursary will be awarded to the best qualified, on examination in the subjects above referred to.

Failing the appointment of preferential candidates, the Bursaries will be tenable for periods of one year only, in manner following, viz.:—*One* will be awarded to the student who, not having completed his twenty-first year, shall pass the best examination in the subjects of the preliminary examination, provided (1) that he has not already passed the said preliminary examination; and (2) that, in the event of his having passed an equivalent examination and presenting himself for the Medical Preliminary Examination, he shall waive all right to admission to the Faculty of Medicine except through the ordinary Medical Preliminary Examination of this University. *One* will be awarded by competitive examination to the student beginning the Second Winter Session, who having already passed the Preliminary Examination required for Graduation in Medicine, shall pass the best examination in the subjects of Chemistry, Botany, Natural History, and Physics. *One* will be awarded by competitive examination to the student beginning the Third Winter Session who, having already passed the First Professional Examination, shall pass the best examination in the subjects of Anatomy and Physiology. *One* will be awarded by competitive examination in Materia Medica at the beginning of the Fourth Winter Session. *One* will be awarded by competitive examination in Pathology at the beginning of the Fifth Winter Session. *Bursars*—1897, *first year, Henry H. Roberts; second year, John*

MacKenzie; third year, R. A. Ross; fourth year, R. M. Rowe; fifth year, A. C. M'Gilchrist.

V. One *Thomson Bursary* is awarded at each of the Preliminary Examinations held in Spring and Autumn, to the Candidate who, being about to commence his Curriculum, takes the highest place in the Medical Preliminary Examination: provided (1) that he has not already passed the said Preliminary Examination; and (2) that, in the event of his having passed an equivalent examination and presenting himself for the Medical Preliminary Examination, he shall waive all right to admission to the Faculty of Medicine except through the ordinary Medical Preliminary Examination of this University. Students of the name of Thomson or Traquair, or those who are natives of the town or county of Dumfries, or of the city of Edinburgh, have a preference. Candidates must enter for the Preliminary Examination before 17th September 1897, and 1st March 1898 for the Autumn and Spring Examinations respectively, and those claiming a preference must intimate their names to Messrs Traquair, Dickson & Maclaren, W.S., 11 Hill Street, Edinburgh, the agents for the Trust (from whom further particulars may be obtained), at least one clear week before the Examinations. *Bursar*—1897-98, *Thomas Nicol.*

VI. *Mackenzie Bursaries*, open to Students of Anatomy Classes, of any year, who shall display the greatest industry and skill in Practical Anatomy during the Winter Session. *See* CALENDAR for 1879-80, p. 353. *Bursars*—1898, *A. L. Gurney* and *W. S. Patton*—equal; *G. R. Mill* and *H. C. Spark*—equal.

VII. *John Aitken Carlyle Bursaries*, one is awarded at the end of every Winter Session to a first year Student for proficiency shown in the ordinary class examinations in Anatomy and Chemistry, the other to a second year's Student for proficiency shown in the ordinary class examinations in Anatomy and Physiology. *See* CALENDAR for 1879-80, p. 350. *Bursars*—Senior, *William Miller*: Junior, *B. P. Watson.*

VIII. The *Anderson Bursaries* have been founded by Mrs Ronald of Liverpool, and will come into operation on the death of an annuitant. For Deed of Foundation, *see* CALENDAR 1882-83, p. 396.

IX. The *Heriot Bursaries* are for Students unconnected with the Hospital, entering upon a regular Curriculum with a view to graduation. For remodelled scheme, see CALENDAR, 1887-88, p. 498. For subjects of Examination, &c., see under Bursaries open in Faculty of Arts.

X. *Crichton Bursaries.*—Two of these Bursaries are open annually—one in Autumn and one in Spring—to Students entering the Faculty of Medicine of this University who have been born in Scotland. The subjects of Examination are Latin, Greek, French, German, Mathematics, Logic, and Moral Philosophy. Each Bursary is of the annual value of £50, tenable for four years, provided the Bursars continue Students of the Medical Faculty of this University. *See* Excerpt from Deed, p. 540 of CALENDAR for 1891-92, and Regulations, p. 749 of CALENDAR for 1895-96. *Bursar*—1897, *Charles M. Campbell.*

XI. The *Grant Mortification* is for Students of the University of Edinburgh, of the name of Grant. The holders may attend the Arts, Medical, Divinity, or Law Classes. Application for information may be made to Messrs Mackenzie, Innes & Logan, W.S., 23 Queen Street, Edinburgh.

XII. The *Jamieson Bursary* is for the benefit of the sons of schoolmasters, farmers, mechanics, and labourers, and other persons born and residing within any one of the following parishes—viz., Crawfordjohn, Crawford, united parishes of Lamington and Wandell, united parishes of Wiston and Roberton, Culter and Biggar. The Bursar may attend Classes in any of the Faculties.

XIII. The *Renton Bursary*, founded by the late William Renton. Candidates must attend one or more of the classes of Natural Philosophy, Mathematics, Chemistry, or Political Economy, and must show that they require pecuniary aid. It cannot be held by any one under the age of sixteen or above twenty-one, or with another Bursary of the value of £30 or upwards. The Examination is in English and Elementary Mathematics, as for the First Year Open Bursaries in Arts.

XIV. *Allan Bursaries.*—These Bursaries are available to Students attending classes in any of the Faculties of Arts, Science, Medicine, or Law, in the University of Edinburgh, and are tenable for three years or for such part of that period as the Bursar shall remain a Student at the University. In nominating Candidates for presentation to the Bursaries, care will be given to prefer such as have been born in the parish of Kelso, provided they are qualified by their previous education for entering the University. Apply to P. Stormonth Darling, Esq., writer, Kelso.

XV. *Maclaurin Bursary.* This Bursary, tenable for four years, is by the will of the founder to be called the "Maclaurin Bursary," and is restricted to Students of the Founder's name of Maclaurin (or in Gaelic orthography "Maclalhrin"). It may be held in any of the Faculties. *See* Deed of Foundation, p. 544 of CALENDAR for 1890-91.

XVI., XVII. *The M'Cosh Graduate's Bursary and M'Cosh Medical Bursary.* Each Bursary is tenable for one year, during which the holder will be required to prosecute Study or Research in a Medical School or Medical Schools of Europe, it being in the discretion of the Faculty of Medicine to award both Bursaries to the same person. Applications for the Bursaries must be made to the Dean of the Faculty of Medicine not later than the end of the third week of July, and must be accompanied with a statement of the name or names of the Medical School or schools intended to be visited, of the time proposed to be spent at each school, and of the nature of the study or special work proposed to be engaged in. Bachelors of Medicine and Bachelors of Surgery are eligible for appointment during one year after receiving these degrees. In considering the claims of candidates, the Faculty of Medicine will take into account not only their professional attainments and ability, but also the knowledge they possess of foreign languages; and it shall be in the option of the Faculty to satisfy themselves with regard to this knowledge by the examination of candidates. Candidates who already hold a Bursary, Scholarship, or Fellowship will not be disqualified except in cases where the Bursary, Scholarship, or Fellowship requires, as a condition of tenure, the prosecution of Original Research, or some other condition which may be interfered with by the holding of a M'Cosh Bursary. Holders of the Bursaries will be required at the end of each three months to transmit to the Dean of the Faculty of Medicine a report of the manner in which they are pursuing their studies, or of the progress being made in any special work in which they are engaged.

IV.—PRIZES.

I.—NEIL ARNOTT PRIZE FOR EXPERIMENTAL PHYSICS.

This Prize, of the value of about £37, 10s., presented to the University by Dr Neil Arnott of London, is awarded annually in October to the Candidate who shall pass with the greatest distinction the Ordinary Examination in Natural Philosophy for the Degree of M.A. Candidates must have been Students of Medicine of this University during either a summer or a winter session ; and the successful candidate must continue a Student of Medicine at this University during the next Winter Session, failing which, the prize will be forfeited and assigned to the competitor next in merit. No student can appear for examination after the completion of his third *annus medicus ;* and no candidate shall be allowed to offer himself more than once.

In the event of a competitor, qualified as above, not coming forward, the prize will be awarded to a Candidate for a Degree in Arts who shall pass with most distinction the ordinary examination in Natural Philosophy. *See* Deed of Foundation at p. 274 of CALENDAR for 1870-71.

1897. *D. Macrae Aitken, M.A.*

II.—THE ROBERT WILSON MEMORIAL PRIZE.

This Prize was founded by John Wilson of South Bantaskine, in memory of his son, Robert Wilson, and is of the value of £6, 5s. It is annually awarded at the close of the Winter Session to the student in the senior Chemistry Class who takes the highest honours. *See* Deed of Foundation at p. 351 of CALENDAR for 1876-77.

1898. *S. A. Ellerbek.*

III.—THE ELLIS PRIZE FOR PHYSIOLOGY.

This Prize consists of the proceeds of a sum of £500 bequeathed by the late Daniel Ellis, Esq., to the Principal and Faculty of Medicine of the University of Edinburgh, accumulated for three or five years. The present value is about £28 per annum. It is awarded for the best Essay or Treatise on some subject of Animal or Vegetable Physiology proposed by the Faculty for competition to Students or Graduates of not more than five years' standing.

IV.—PRIZES FOR THESES.

Gold Medals, each of the value of £10, are awarded annually on the day of graduation to Doctors of Medicine whose Theses are deemed worthy of that honour.

V.—THE WIGHTMAN PRIZE IN CLINICAL MEDICINE.

This Prize of £12 was founded by Mrs E. Wightman, in memory of her son, J. T. Wightman, M.B., C.M., and is annually awarded at

the close of the Summer Session to the student attending the Class of Clinical Medicine for the best Dissertation on any subject presented by the Faculty of Medicine, or for the best Report and Commentary on cases which have during the previous Winter and Summer Sessions been treated in the University Clinical Wards in the Royal Infirmary. Three months' notice of subject is given by the Faculty of Medicine. *See* Deed of Foundation at p. 348 of CALENDAR for 1876-77.

The Prize, which is open to members of the Clinical Class of either Winter 1897-98 or Summer 1898, will be awarded for the best report and commentary on cases. The Essays to be given in before 6th July.

1897. *Ernest Francis Bashford.*

VI.—THE BEANEY PRIZE.

This Prize of £32, 10s., was founded in 1878 by James George Beaney, Esq. of Melbourne. It is awarded at the Graduation Ceremonial in Medicine to the Graduate in Medicine and Surgery of the year who, having attended within the University courses on Anatomy, Surgery, and Clinical Surgery qualifying for Graduation, obtains the highest number of marks during his examinations in these subjects for the Degrees of Bachelor of Medicine and Master in Surgery. The Senatus has the power of withholding the Prize in the event of no Student passing the above examinations with sufficient merit. *See* Deed of Foundation at p. 371 of CALENDAR for 1878-9.

1897. *Charles Miner Cooper, M.B., Ch.B.*

VII.—THE CAMERON PRIZE.

This Prize was founded in 1878 by the late Dr Andrew Robertson Cameron, of Richmond, New South Wales. It consisted of the annual proceeds of a sum of £2000, to be given annually "to the practitioner or member of the medical profession who shall be adjudged to have made the most valuable addition to Practical Therapeutics during the year preceding, and in determining such question, the word Therapeutics shall be taken in its widest sense as including every agent, or agency capable of influencing the human body in the maintenance or improvement of health, avoidance or cure of diseases, or the alleviation of suffering."

The regulations have been remodelled by the Educational Endowments (Scotland) Commission, and the annual proceeds, which, after defraying the necessary expenses, amount to about £80, may be awarded annually to a person who in the course of the five years immediately preceding has made any highly important and valuable addition to Practical Therapeutics. The Prizeman is required to deliver a lecture or course of lectures on the addition to Practical Therapeutics so made by him, or to publish an account of such addition in such manner as the Senatus may prescribe. The prize will not be awarded if, in the opinion of the Senatus, no addition to Practical Therapeutics has been made within the said period of five years of sufficient importance and value to justify the awarding of the prize.

The prize is awarded annually at the Graduation Ceremonial in August. *See* Remodelled Regulations, p. 497 of CALENDAR for 1888-89.

1897. *Thomas R. Fraser, M.D., LL.D., F.R.S., Professor of Materia Medica, in recognition of his investigations in connection with Strophanthus.*

VIII.—THE DOBBIE SMITH PRIZE IN BOTANY.

This prize, which consists of a Gold Medal, is open to competition each alternate year to all Matriculated Students of the year of the award, for an Essay on a Botanical subject. The subject of the next competition is an original investigation "On the Structure, Development, and Life History of any British Flowering Plant;" and the memoir is to be accompanied with a series of illustrative specimens. Competing Essays to be sent to the Dean of the Faculty of Medicine on or before 1st July 1899. The prize will be awarded to the successful competitor at the Graduation Ceremony of August 1899.

IX.-XIX.—THE GUNNING VICTORIA JUBILEE PRIZES.

Dr Gunning, of Edinburgh and Rio de Janeiro, has founded Eleven Post-Graduation Prizes of the value of £50 each, viz.:—(1) The Monro prize for Anatomy; (2) The Bell prize for Physiology; (3) The Edward Forbes prize for Zoology, &c.; (4) The Hutton Balfour prize for Botany; (5) The Joseph Black prize for Chemistry; (6) The Christison prize for Materia Medica; (7) The Lister prize for Surgery; (8) The Gregory prize for Practice of Physic; (9) The John Thomson prize for Pathology; (10) The Simpson prize for Obstetrics; (11) The Alison prize for Medical Jurisprudence and Public Health. Candidates must be either Bachelors of Medicine or Bachelors of Science of this University of not more than three years' standing. The prizes will be awarded with the approval of the Senatus for (1st) either (*a*) Competitive Essays written specially for the prizes, or (*b*) Theses submitted for Graduation; or (2nd) for original research conducted under supervision of the Professor in the department in which the prize is awarded. Two prizes will be awarded annually in the following rotation, viz.:—Pathology, Zoology, Materia Medica, Obstetrics, Public Health and Medical Jurisprudence, Anatomy, Chemistry, Practice of Physic, Physiology, Botany, and Surgery. Competitive Essays are required to be lodged with the Dean of the Faculty of Medicine on or before 30th April of the year in which each prize is to be awarded, and the successful competitors will be announced annually at the Graduation Ceremonial in Medicine.

1897. Physiology—No award.
Practice of Physic—*John Forbes, M.A., B.Sc., M.B., C.M.*

XX.—ANDERSON HENRY PRIZE.

The Prize was founded by Isaac Anderson Henry of Woodend, and consists of the proceeds of a sum of £300 accumulated for three years.

It is awarded for the best and approved essay on a botanical subject proposed by the Professor of Botany, the Curator of the Royal Botanic Garden, and the President of the Botanical Society of Edinburgh, for competition to students in the Class of Botany in the University of Edinburgh, during any of the three years preceding the date of the award. The next award may be made in August 1901. Competing Essays to be sent to the Dean of the Faculty of Medicine on or before 1st July 1901.

1898.

XXI.—MILNER FOTHERGILL MEDAL IN THERAPEUTICS.

This Medal, of the value of about £20, is awarded biennially. It is open for competition to Graduates in Medicine of the University, who have been members of the Class of Materia Medica in the University, for the best essay which shall include a description of original research made by the Candidate on a Pharmacological or Therapeutic subject, preference being given to a subject relating to Dietetics. *See* Deed of Foundation, p. 542 of CALENDAR for 1891-92. The next award may be made at the Graduation Ceremonial in August 1899. Essays to be lodged with the Professor of Materia Medica on or before 30th April 1899.

1897. *William Edward Fothergill, M.A., B.Sc., M.B., C.M.*

XXII.—PATTISON PRIZE IN CLINICAL SURGERY.

This Prize of about £11, 7s. 6d., is awarded annually to the Student of the University Class of Clinical Surgery who shall write the best Report and Commentary on cases treated in the University Surgical Wards during the Academic Year. The Essays to be given in before 6th July.

1897. *Robert William Mackenna, M.A.*

FELLOWSHIPS, SCHOLARSHIPS, BURSARIES, AND PRIZES OPEN TO COMPETITION IN THE FACULTY OF MEDICINE IN 1898-99.[1]

For further information, and for information regarding other Scholarships, Fellowships, Bursaries, and Prizes, see CALENDAR, where full information regarding the conditions of tenure and the values are given.

FELLOWSHIPS.[1]

1. *The Syme Surgical Fellowship* (No. I., page 401). The next award may be made at the Graduation Ceremonial in July 1899. Theses to be lodged *on or before* 30th April.

[1] *N.B.*—The values of the Fellowships, Scholarships, Bursaries, and Prizes are subject to variation consequent on the rise or fall of the rate of interest, &c. No Candidate will be allowed to hold the same Fellowship, Scholarship, Bursary, or Prize more than once.

2. *The Goodsir Memorial Fellowship* (No. II., page 401). The next award may be made in July 1899, and competing essays or treatises must be lodged with the Professor of Anatomy not later than the 30th April previously.

3. *The Leckie-Mactier Fellowship* (No. III., page 401). The examination will be held in November 1898.

SCHOLARSHIPS.[1]

Seven Vans Dunlop Scholarships.

1. *One* in Preliminary subjects (No. V., page 404). The next award will be made in March 1899.

2. *One* in Botany and Zoology (No. VII., page 405). The next competition will take place in July 1899. Names of Candidates to be sent in to the Dean of the Faculty of Medicine on or before 1st July.

3. *One* in Chemistry, Anatomy, and Physics (No. VI., page 404). The next competition will take place at the end of March 1899. Names of Candidates to be sent in to the Dean of the Faculty of Medicine on or before 15th March.

4. *One* in Physiology and Surgery (No. VIII., page 405). The next competition will take place in March 1899. Names of Candidates to be sent in to the Dean of the Faculty of Medicine on or before 15th March.

5. *One* in Anatomy and Physiology (No. IX., page 405). The next competition will take place in October 1899. Names of Candidates to be sent in to the Dean of the Faculty of Medicine on or before 1st October.

6. *One* in Materia Medica (including Pharmacology) (No. X., page 405). The next competition will take place in January 1900. Names to be sent in to the Dean of the Faculty of Medicine on or before 15th December 1899.

7. *One* in Pathology and Medical Jurisprudence and Public Health (No. XI., page 406). The next competition will take place in October 1899. Names of Candidates to be sent in to the Dean of the Faculty of Medicine on or before 1st October.

8. *The Mouat Scholarship in Practice of Physic* (No. XVIII., page 407).

9. *The Murchison Memorial Scholarship* (No. XII., page 406). The competition in 1899 will take place in Edinburgh.

10. *The Buchanan Scholarship* (No. XIV., page 407).

11. *The James Scott Scholarship* (No. XV., page 407).

12. *The Ettles Scholarship in Medicine* (No. I., page 402).

13, 14. *Two Hope Prize Scholarships* (Nos. XVI. and XVII., page 407).

15, 16. *Two Crichton Scholarships for Research* (No. XX., page 408)—*one* in Anatomy and *one* in Physiology. Candidates are required to intimate their names, and to give a sufficient description of the

[1] See footnote, page 416.

Research work they propose to undertake, to the Dean of the Faculty of Medicine on or before 1st September.

The William Dickson Travelling Fund (see page 178).

The Earl of Moray Bequest for the Promotion of Original Research (see page 178).

BURSARIES.[1]

Town Council Bursaries.—Candidates for Bursaries in the gift of the Town Council, a number of which are vacant (and some of which may be held in the Faculty of Medicine), are referred to the "*City Clerk, Council Chambers,* Edinburgh," to whom early application should be made.

1. *One Sibbald Bursary* (No. II., page 409).

2, 3. *Two Thomson Bursaries* (No. V., page 409). Candidates claiming a preference must send their names to Messrs Traquair, Dickson & Maclaren, W.S., 11 Hill Street, Edinburgh, before 15th September, and on or before 1st March.

4, 5. *Two Grant Bursaries* (Nos. 19 and 20, page 186).

6. *Jamieson Bursary* (Nos. 24 and 27, pages 186 and 187).

7-11. *Five Grierson Bursaries* (No. IV., pages 409 and 410). Candidates for the Second, Third, Fourth, and Fifth year Bursaries must show that they are eligible Candidates. The competition for the Second, Third, Fourth, and Fifth year Bursaries will take place in October 1898, on a date to be afterwards announced. Names of Candidates to be entered on or before 16th September.

12, 13. *Two John Aitken Carlyle Bursaries* (No. VII., page 409).

14, 15. *Two Mackenzie Bursaries* (No. VI., p. 409).

16. *Renton Bursary* (No. XIII., page 409). Names of Candidates to be entered at the Secretary's Office, on or before 16th September.

17, 18. *Two Crichton Bursaries* (No. X., p. 409).

19, 20. *Two Mackie Bursaries* (No. III., page 409).

21, 22. *The M'Cosh Graduate's Bursary and M'Cosh Medical Bursary* (see Nos. XVI. and XVII., page 409).

Competitors for the above Fellowships, Scholarships, and Bursaries, excepting those awarded for the subjects of Preliminary Examination, must have studied the subjects of Examination at the University of Edinburgh. No Fellowship, Scholarship, or Bursary, with the exception of the Ettles Scholarship, can be held along with any other Fellowship, Scholarship, or Bursary.

PRIZES.[1]

The Medical Faculty Medals.—Gold Medals are given on the day of Graduation to Doctors of Medicine whose Theses are deemed worthy of that honour.

1. *The Neil Arnott Prize* (No. I., page 413).

[1] See footnote, page 416.

2. *The Beaney Prize* (No. VI., page 414).
3. *The Cameron Prize* (No. VII., page 414).
4, 5. *The Gunning Victoria Jubilee Prizes in Pathology and Zoology* (No. IX., page 415). Competitive Essays are required to be lodged with the Dean of the Faculty of Medicine on or before 30th April 1899.
6. *The Wightman Prize in Clinical Medicine* (No. V., page 413).
7. *The Pattison Prize in Clinical Surgery* (No. XXII., page 416).
8. *The Dobbie Smith Prize* (No. VIII., page 415).
9. *The Robert Wilson Memorial Prize* (No. II., page 413).
10. *The Lord Rector's Prize* (No. II., page 182).
11, 12, 13. *Three Gray Prizes* (Nos. 7, 8, and 9, page 182).

LECTURESHIP.

The Swiney Lectureship on Geology, value £144 per annum, tenable for five years, is open to Graduates of the University of Edinburgh. It is in the patronage of the Trustees of the British Museum.

"Bursars in the Faculty of Medicine must annually attend at least two of the Classes necessary for the Degrees of M.B. and Ch.B., and must present themselves at the Examinations necessary for these Degrees.

"Each Bursar must present a Certificate, signed by the Dean, attesting his regular attendance on the proper Classes in the Faculty on each occasion on which he applies to the Factor for a payment."

In the case of those Scholarships, &c., which imply or require research work which is afterwards published, it is required that a statement should be made in the publication that the work has been done while holding such Scholarship, &c.

Certificates, in terms of this regulation, will be given to Bursars, by the *Dean of the Faculty of Medicine*, after 14th November; also at the end of the Session. In applying to the Dean for the Certificate in November, Bursars must present their Class Cards for the Session; and at the end of the Session they must present certificates from the Professors that they have attended with regularity and made progress in their studies. Payments are made by the University Factor, Mr Henry Cook, W.S., 61 North Castle Street, Edinburgh, on and after 15th November for the Martinmas payments, and on and after 18th May for the Whitsunday payments,—between 10 and 3 o'clock.

N.B.—*Bursars, Scholars, and Fellows who desire to resign should at once announce this to the Dean and to the Factor. They must apply to the Factor for the instalments due to them within three months after they have become payable, otherwise they will be regarded as having resigned.*

THOMAS R. FRASER, M.D., LL.D.,
Dean of the Faculty of Medicine and Professor of Materia Medica.

Faculty of Music.

Dean—Professor NIECKS.

—o—

STUDENTS who do not intend to graduate in Music may, without matriculating or passing any Preliminary Examination, attend any of the Classes on payment of the Five Shillings University Entrance-Fee, besides the Class Fees.

Those desiring to graduate must pass the Preliminary Examination, and must Matriculate before enrolling in any Class.

The Classes, open both to men and women students, will meet as undernoted, except during the Christmas Vacation, *i.e.*, from Wednesday, 21st December 1898, to Wednesday, 4th January 1899, inclusively.

Programme of Classes.

WINTER SESSION, 1898-99.

PROFESSOR NIECKS.

Lectures, Theoretical and Practical Instruction, and Concerts, in the Winter Session of 1898-99 :—

1. HISTORY OF MUSIC FROM THE BEGINNING OF THE CHRISTIAN ERA TO THE PRESENT DAY, ESPECIALLY OF THE 15TH, 16TH, AND 17TH CENTURIES.

Once a week (Thursdays, 3-4), beginning 20th October. Twenty Lectures. Fee, One Guinea.

2. MUSICAL ANALYSIS.

The Pianoforte Sonatas of Beethoven, their History, Form, and Content.

Once a week (Mondays, 3-4), beginning 17th October. Twenty Lectures. Fee, One Guinea.

3. HARMONY.

Twice a week (Tuesdays and Fridays, 3-4), beginning 18th October. Fee, Two Guineas.

4. ADVANCED HARMONY.

Twice a week (Tuesdays and Fridays, 4-5), beginning 18th October. Fee, Two Guineas.

5. Counterpoint and Composition.

Once a week (Mondays, 4-5), beginning 17th October. Fee, Two Guineas.

6. Series of Historical Concerts.

Fee for these Concerts, Half-a-Guinea. Those attending any of the Music Classes are admitted free.

EXAMINERS FOR DEGREES.

Professor Niecks, Sir Alexander C. Mackenzie, and the Examiners in English, French, and German for M.A. Degree.

UNIVERSITY LIBRARY.

Every Matriculated Student is entitled to two volumes at one time, and to retain any book for two weeks, and to re-borrow any book for successive periods of two weeks, unless applied for by another person entitled to the use of the Library.

The Library will be closed for lending books during the annual inspection, from 1st to 8th October. It will be open for giving out books, either on loan or for reference, every lawful day thereafter till Saturday, 15th April 1899, from Ten till Four o'clock; Saturdays, Ten to One; and from 22nd April to 30th September 1899, from Ten till Three o'clock; Saturdays, Ten to Twelve, except as after-mentioned. During August, the Christmas Vacation, and the week in which the Spring Holiday occurs, the Library is open (but not the Reading Rooms) from Ten to One, except on Saturdays and holidays. The holidays are the Queen's Birthday, Christmas Day, New Year's Day, Good Friday, and the Edinburgh Spring and Autumn Holidays.

The Students' Reading Rooms (one for women) in the Library (Old Buildings) are open daily during the Winter Session from Ten to Four, and from Eight to Ten; Saturdays, Ten to One. During the Summer Session they are open from Ten to Three; Saturdays, Ten to Twelve.

Every Student applying for books must exhibit his Matriculation Ticket, with the Class Ticket of one Professor, and deposit £1 at the Matriculation Office, after which his name will be enrolled in the Library Books.

Every book taken out must be returned uninjured within a Fortnight.

MATRICULATION FEES.

For the Academic Year, 1st October to 1st October, .	£1 1 0
For the Summer Session only, 1st May to 1st October, .	0 10 6
Entrance Fee for non-matriculated Students, . . .	0 5 0

Candidates for Examination or for Graduation must Matriculate.

MUSIC CLASS-ROOM LIBRARY.

The Reading Room of this Library is open for the consultation and study of musical works and books on music to those attending the Music Classes, daily, except Saturday, from Two to Five o'clock.

MUSEUM.

The Museum of Musical and Acoustic Instruments is open to Music Students.

Regulations for Graduation in Music.

I. Two degrees in Music are conferred by this University, viz., Bachelor of Music (Mus. Bac.), and Doctor of Music (Mus. Doc.).

I. Preliminary Examination.

II. 1. Every Candidate for the degree of Mus. Bac. must pass a preliminary examination in :—(1) English, including Geography and British History; (2) Elementary Mathematics or Elementary Physics or Logic; (3) any two of Latin, Greek, French, German, and Italian, but one at least must be a modern language.

2. The extent and standard of the preliminary examination is determined by the Senatus.

3. A degree in Arts not being a degree *honoris causâ tantum*, in any University of the United Kingdom, or in any Colonial or Foreign University, specially recognised for the purpose by the University Court, after consultation with the Senatus, exempts from the preliminary examination; and the Senatus has power to determine what examinations, other than those for the degree mentioned, will be accepted in whole or in part in place of the preliminary examination.

II. Bachelor of Music.

University Attendance.

III. Candidates for the degree of Mus. Bac. must attend, in the University of Edinburgh during a whole Winter Session, a course or courses of instruction extending in all to not less than eighty Lectures, and including a course on the History of Music.

III. First Professional Examination.

IV. There is a First Professional Examination in Music in the following subjects :—

(1) Singing or performing upon some Musical Instrument.
(2) Reading at Sight.
(3) Elements of Music, including Musical Modes, and Scales, Notation, Measure, and *Tempo*.
(4) Harmony in not more than four parts.
(5) Elementary Counterpoint.
(6) Form: Sonata, Rondo, Fugue, and Minor Structures.
(7) Outlines of the History of Music.

The Ear Test will be applied to every Candidate.

IV. Second Professional Examination.

V. There shall be, at least one year after the candidate has passed the First Professional Examination, a second Professional Examination in Music and in Literature in the following subjects :—

(1) One of the following languages not already taken in the preliminary examination—French, German, Italian.

(2) Rhetoric and English Literature (including Prose Composition and a knowledge of Metrical Rules).

(3) Harmony in not more than five parts.

(4) Advanced Counterpoint.

(5) Canon in two parts, and Imitation and Fugue in not more than four parts.

(6) Form (Description of Structure and Character of Musical Forms, and Analysis of Musical Works).

(7) Elements of Instrumentation (Compass of the Orchestral Instruments, and of the Organ and Pianoforte).

(8) Critical Knowledge of certain prescribed Scores.

(9) Playing at Sight from easy Vocal and Instrumental Scores, and from Figured Bass.

(10) The History of Music.

(11) Acoustics in so far as connected with the Theory of Music, and Physiology of the Vocal Organs.

Each Candidate will also be required to submit the following exercises composed by himself :—

(*a*) A Solo Song with Pianoforte Accompaniment.

(*b*) A Four-part Vocal Composition.

(*c*) An Instrumental Composition (other than a Dance) for the Pianoforte or Organ, or for any Stringed or Wind Instrument with Pianoforte or Organ Accompaniment.

The extent and standard of examination is fixed by the Senatus. The examination is partly written and partly oral and practical.

V. Doctor of Music.

V. Bachelors of Music of this University, of not less than three years' standing, and not less than twenty-five years of age, may offer themselves for the degree of Mus. Doc. under the following regulations :—The degree is given in three Departments, those of (1) Composers ; (2) Executants ; (3) Theorists or Historians ; and Candidates may present themselves in one or more Departments.

VI. (1) Candidates for the degree of Mus. Doc. as Composers must submit a prescribed number of Vocal and Instrumental Compositions in the larger forms (such as Oratorio, Opera, Cantata, Symphony, Sonata, Overture). Each work must be the original and unaided composition of the Candidate, and must be accompanied by a declaration to that effect signed by the Candidate.

(2) Candidates will be examined in the following subjects :—

(*a*) The more recondite Contrapuntal Forms—Fugal Writing in more than four parts, &c.

(*b*) Instrumentation, including prescribed books on the subject.

(*c*) The works of the great Composers from Palestrina onwards.

VII. (1) Candidates for the degree of Mus. Doc. as Executants will be required to show their special skill in the execution of Solo and *ensemble* works in different styles. The works will be selected partly by the Candidates and partly by the examiners.

(2) The Candidates will be examined in sight-reading, and must give evidence of their power of playing Orchestral Scores, and will be required to invent Transitions and to modulate from one Key and Piece to another. They will further be required to pass an examination on the History and Literature of their special instrument, and on the method of teaching that instrument.

VIII. (1) Candidates for the degree of Mus. Doc. as Theorists or Historians must present one or more treatises on Theoretical or Historical subjects, which must be the result of research and original thought, not mere abstracts or compilations of existing works. They must be accompanied by a declaration signed by the Candidate that they are his own unaided work.

(2) Candidates will also be required to pass an examination (*a*) in the Theory and (*b*) in the History of Music.

The examination will be on a higher standard in the subject which the Candidate selects as his specialty.

IX. The examiners for the degree of Mus. Doc. are the same as for the degree of Mus. Bac.

It is competent to the University Court of the University of Edinburgh, after consultation with the Senatus, to modify from time to time the provisions as to curriculum hereinbefore contained, in case such modification shall be rendered desirable.

X. (1) The degree of Mus. Doc. may be conferred *honoris causâ tantum.*

(2) The honorary degree of Mus. Doc. will not be conferred by the Senatus on any person unless recommended by the Faculty of Music in a reasoned representation, submitted in writing to the Senatus, and considered and approved by the Senatus at a special meeting at which not less than two-thirds of the members were present.

Preliminary Examination.

The Examination in English, Latin, Greek, Mathematics, French, German, and Italian, or such other language as the Senatus may approve, is the same as the Preliminary Examination in English, Lower Latin, Lower Greek, Lower Mathematics, French, German, and Italian, or other language approved by the Senatus, for the Degree in Arts; and the

Examination in Logic and Physics is of the same standard as the Preliminary Examination in these subjects for Degrees in Medicine. The subjects are denoted in the Time-Table of the Preliminary Examinations for the Degree in Arts by the figure 4.

Candidates for Examination must apply at the Matriculation Office, University (Old) Buildings, for schedules, which must be completed and returned along with the fees, not later than 16th September 1898 and 1st March 1899 for the autumn and spring Examinations respectively.[1]

Candidates applying for information regarding the Preliminary Examination will be supplied with copies of the Regulations for the Preliminary Examinations for Degrees in Arts and in Medicine, which give the outlines and dates, &c., for the Preliminary Examination for Degrees in Music.

FEES.[1]

Preliminary Examination for each appearance, 10s. 6d.

Degree of Mus. Bac. is £10, 10s., divided as follows:—

First Professional Examination	£3	3	0
Second Professional Examination—Literary part .	1	1	0
Do. Do. —Musical part .	3	3	0
For the Diploma	3	3	0

Candidates who fail pay a fee of 10s. 6d. for each subject in which they are admitted to re-examination.

Candidates may pay the fees personally, or transmit them to T. GILBERT, University, Edinburgh, by *Post Office* or *Postal Orders*, or by *Bank Drafts*, crossed Union Bank of Scotland (Hunter Square Branch), Edinburgh, but not by cheques on private accounts.

DATES OF DEGREE EXAMINATIONS.

1899.

March 10. Names to be given in, Certificates shown, and fees paid, on or before this date.

FIRST PROFESSIONAL EXAMINATION.

„ 22. Singing, Playing, Reading at Sight, and Ear Test, at 11; Harmony, at 2.

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[1] If names are not entered, and fees are not paid, on or before the stated dates, a late-entry fee of ten shillings must be paid before the Candidate can be admitted to examination.

1899.

March 23. Counterpoint, at 10; Elements of Music, at 2;
„ 24. History of Music, at 10; Form, at 2.

SECOND PROFESSIONAL EXAMINATION.

„ 22. Playing at Sight from Scores, at 10; Instrumentation and Critical Knowledge of Scores, at 11; Harmony, at 2.
„ 23. Counterpoint, at 10; Canon and Fugue, at 2.
„ 24. History, at 10; Form, at 2.
„ 25. Acoustics and Physiology of the Vocal Organs, at 10; Rhetoric and English Literature, at 2.

GRADUATE IN MUSIC.

THE DEGREE OF BACHELOR OF MUSIC (MUS. BAC.).

13th April 1898.
Matthew Shirlaw.

BUCHER SCHOLARSHIP.

By the will of Signor Theophile Bucher, his trustees were enjoined to pay over the residue of his estate, amounting to about £4000, to the University, for the purpose of founding one or more Scholarships in Music to be held by any young men born in Scotland, who may shew a natural talent for music and wish to make it their profession, for the purpose of improving their education, and enabling them to prosecute the study of the science and art of Music in Italy, Germany, and France.

The Subjects of Examination for the Scholarship include Harmony, Rhythm, and Counterpoint, and the competition is open to young men between the ages of sixteen and twenty-five inclusively. The value shall not, after deducting the expenses of management and of examination, exceed £120 in any one year, the interest in excess of that sum to be added to the capital to form a second Scholarship. It is tenable for three years, and may be extended to a period not exceeding two years, during which time the scholars must prosecute the study of the science and art of Music in Italy, Germany, and France, as the Senatus, on the recommendation of the Faculty of Music, may determine. The Scholarship may be open in 1899. See Scheme of Administration, page 709 of CALENDAR for 1894-95.

1896. *Robert Hutton Malcolm.*

FREDERICK NIECKS,
Dean of the Faculty of Music.

JOINT BOARD OF EXAMINERS OF THE SCOTTISH UNIVERSITIES.

(PRELIMINARY EXAMINATIONS.)

A Joint Board of Examiners, which controls and supervises the Preliminary Examinations, is appointed annually by the University Courts of the four Scottish Universities, and holds office from 1st February to 31st January in the succeeding year. The Board sits for a year at each University in rotation, viz. :— Edinburgh, Glasgow, Aberdeen, St Andrews. The Principal of the University at which the Board sits is Chairman for the time, and the Secretary of the University Court is Convener.

Members of the Board, which meets at Glasgow, for the current year (1st February 1898 to 31st January 1899) :—

Chairman—The Very Rev. Principal Caird, D.D., LL.D., &c.

Convener—Alan E. Clapperton, Esq., B.L.

Appointed by Edinburgh University—Stewart A. Robertson, Esq., M.A. (English) ; Professor Hardie, M.A. (Classics) ; Professor Chrystal, LL.D. (Mathematics and Dynamics) ; C. D. Campbell, Esq. (Modern Languages).

Appointed by Glasgow University—Professor Bradley (English) ; John Edgar, Esq., M.A. (Classics) ; Professor Gibson (Mathematics and Dynamics) ; Alfred Mercier, Esq. (Modern Languages).

Appointed by Aberdeen University—John Hay Lobban, Esq., M.A. (English) ; Reynold A. Nicholson, Esq., M.A. (Classics) ; Professor Niven (Mathematics and Dynamics) ; William Scholle, Esq., Ph.D., (Modern Languages).

Appointed by St Andrews University—Professor Lawson (English) ; Professor Burnet (Classics) ; John R. Pullar Esq., M.A. (Mathematics and Dynamics) ; Herr Esser (Modern Languages).

The Joint Board from time to time issues Supplementary Regulations for the Preliminary Examination, and sets the papers, which are common to all the Scottish Universities. It also gives instructions to the Examiners with a view to secure adequate and uniform examination.

Preliminary Examination in Arts and Science.[1]

In addition to the Regulations, Sections III. to V. inclusively, pages 102-104, the Joint Board have made the following Supplementary Regulations :—

[1] See Examinations accepted as exempting, page 430.

1. *English* will include Grammar, Composition, Literature, History, and Geography.

(*a*) *Grammar* will include Analysis, Parsing, Derivation, and Correction of sentences.

(*b*) *Composition* will include an Essay and Paraphrasing.

(*c*) *Literature* will comprise a knowledge of certain prescribed books of two or three writers. Questions requiring a general knowledge of the life and works of the greater writers will not be set; but one or two questions may be set, giving an opportunity to candidates who have read widely in English Literature to show their knowledge.

The Books prescribed are: — For 1898—1. Shakespeare: *The Tempest*. 2. Scott: *Heart of Midlothian*. 3. Milton: *L'Allegro*, *Il Penseroso*, *Arcades*, *Comus*, *Lycidas*. 4. Addison: Selections from *Spectator* (Macmillan, ed. Deighton). For 1899—1. Shakespeare: *Julius Cæsar*. 2. Scott: *Kenilworth*. 3. Matthew Arnold: *Selections* (Macmillan, ed. Macaulay). 4. Johnson: *Life of Pope*.

(*d*) *History* will include a knowledge of one of the three following periods to be taken in successive years in the order herein mentioned, namely:—The Outlines of the History of both England and Scotland (*a*) from the Union of the Parliaments in 1707 to the Reform Bill of 1832 (for October 1898); (*b*) from the Roman occupation to 1603 (for April and October 1899); (*c*) from 1603 to the Union of the Parliaments in 1707 (for April and October 1900).

(*e*) *Geography* will include a general knowledge of the Geography of the World, and a special knowledge of the Geography of the British Empire.

2. The *Latin* Examination on the Higher Standard will be—Translation, Prose Composition, Grammar, and Sentences.

3. The *Greek* Examination on the Higher Standard will be—Translation, Sentences, and Grammar.

The passages for Translation both from Greek and Latin will include Prose and Verse.

4. The *Latin* Examination on the Lower Standard will be—Translation and Parsing, Prose Composition, Grammar, and Sentences.

5. The *Greek* Examination on the Lower Standard will be—Translation, Sentences, and Grammar.

In the Latin and the Greek papers, both on the Higher and Lower Standards, Candidates are required to satisfy the Examiners both in composition and in translation.

6. In the Examination in Mathematics on the Higher, the Intermediate, and on the Lower Standards, each question in Geometry will consist of two parts, of which one will be an easy deduction or illustrative exercise on the proposition set as bookwork.

The papers in Mathematics on the Higher Standard and on the Intermediate Standard will be devoted to the various subjects comprised in them as nearly as possible in the following proportions:

two-fifths to *Geometry*, two-fifths to *Algebra* (including Arithmetic, if thought desirable), and one-fifth to *Trigonometry*.

Candidates for the Higher Standard may obtain full marks by doing correctly about two-thirds of the questions set in each subject; but the Examiners will be entitled to reject a Candidate who makes in any subject less than a certain minimum of the marks allotted to that subject.

The pass mark for Candidates on the Intermediate Standard is fixed with reference to the total number of marks assigned to questions which fall under the syllabus of the Intermediate Standard; but such Candidates will receive credit for any question they may answer.

The paper in Mathematics on the Lower Standard will be devoted to the various subjects comprised, in as nearly as possible the following proportions: four-ninths to *Geometry*, three-ninths to *Algebra*, and two-ninths to *Arithmetic*.

Candidates may obtain full marks by doing correctly about two-thirds of the questions set in each subject; but the Examiners will be entitled to reject a Candidate who makes in any subject less than a certain minimum of the marks allotted to that subject.

7. The paper on Dynamics will be directed to test the Candidate's knowledge of the fundamental principles of the subjects included in it. As far as possible each question will consist of two parts, one of which will be a numerical or other simple illustrative example of the principle with which the other part of the question deals.

About one-seventh of the paper will be devoted to *Kinematics*, and the remainder of the paper will be assigned to *Kinetics*, *Statics*, and *Hydrostatics*, in as nearly as possible equal proportions.

Candidates may obtain full marks by doing correctly about two-thirds of the questions set in each section of the paper.

Dynamics shall include the following:—

(1) *Kinematics.*—Displacements, velocities, and accelerations of a moving point, with their compositions and resolutions. Translation of a rigid body. Relative velocity of two moving points.

(2) *Kinetics.*—The laws of motion, momentum, force, energy, work, —their measures in the British and C.G.S. systems of units. Change of units. Rectilinear motion of a particle under the action of constant forces. Free motion of a body under gravity, including projectiles. Atwood's machine. Impulsive forces. Direct impact of smooth spheres.

(3) *Statics.*—Composition and resolution of co-planar forces. Theory of co-planar couples. Conditions of equilibrium of forces in one plane. Centre of mass. Friction. Machines. Application of the principle of work to machines.

(4) *Hydrostatics.*—Definitions of *solid*, *fluid*, *liquid*, *gas*. Viscosity. Measure of the pressure at a point of fluid. Law of equable transmission of pressure. Laws of variation of pressure in heavy liquids. Resultant pressure of a heavy liquid on a plane surface, including the centre of pressure of a plane surface. Principle of Archimedes. Experimental

determination of the densities of solids, liquids, and gases. Atmospheric pressure. The barometer. Boyle's law. The siphon, pumps for liquids, air pumps, and the diving-bell.

Questions may be set which involve the Trigonometry of right-angled triangles.

8. For the Examination in French and German—

Two papers will be set, both in French and German—an hour and a half being allowed for the first paper, and two hours for the second; the first paper to contain a passage for translation from English into French or German, with some short sentences of an idiomatic character; the second paper will contain a set of grammatical questions, two passages for translation into English (one in Verse, one in Prose), and a selection of Literary or Philological questions, from which the Candidate will be allowed to choose *one only*.

The questions on Literature will be confined year by year to certain groups of authors, as in the following scheme, viz:—

French.—In October 1898.—(*XIXth Century*)—Chateaubriand, Mme. de Staël, Lamartine, Victor Hugo, Alfred de Musset, Alexandre Dumas, George Sand, Balzac, Prosper Mérimée, Guizot, Thiers, Mignet, Michelet. In April and October 1899.—(*XVIIth Century*)—Pascal, Descartes, Corneille, Racine, Molière, Boileau, La Fontaine, Mme. de Sévigné, Bossuet, Fénelon, La Rochefoucauld, La Bruyère.

German.—In October 1898.—Jean Paul, the Schlegels, Novalis, Tieck, Arnim, Brentano, Grillparzer, Heine, Uhland. In April and October 1899.—Klopstock, Wieland, Lessing, Herder, Bürger, Voss, Friedrich Leopold Stolberg, Hölty, Leisewitz.

Candidates who, having taken in *Latin* or *Greek* the Examination on the Higher Standard have failed to pass on that Standard, but have obtained a percentage of marks equivalent to a pass on the Lower Standard, may be held by the Board to have passed the Examination on the Lower Standard.

Examinations Exempting from the Preliminary Examination in Arts and Science.

The Joint Board accept the following Examinations as exempting from the Preliminary Examination in Arts and Science, either *wholly* or *in part*:—

1. A Degree in Arts or in Science, not being an Honorary Degree, in any of the Universities of the United Kingdom, shall exempt from the Preliminary Examination in Arts or in Science, as the case may be.

2. For the Preliminary Examination in Arts and Science the Higher and Honours Grade Leaving Certificates of the Scotch Education Department in Latin, Greek, and Mathematics will be accepted as equivalent to the Higher Standard in each of these subjects, as prescribed by

the Arts Regulations, and the Lower Grade Certificate to the Lower Standard; the Higher and Honours Grade Leaving Certificate in English, in Modern Languages, and in Dynamics will be accepted as equivalent to the standard prescribed for each of these subjects by the Arts Regulations.

3. A Certificate of having passed in the Honours or First Division in English in the London University Matriculation Examination will be accepted as equivalent to English in the Arts and Science Preliminary Examination; and the Joint Board also accepts for the Preliminary Arts and Science Examination (1) London University Matriculation Mathematics as equivalent to Lower Mathematics; (2) London University Matriculation Mechanics as equivalent to Dynamics; and (3) London University Intermediate Mathematics as equivalent to Intermediate and Higher Mathematics.

4. *Oxford University Senior Local Examinations*, if passed with distinction, will be accepted as exempting *pro tanto* in Higher Latin, Higher Greek, French, German, and Intermediate Mathematics, and in English provided that the candidate has passed with distinction in division 1, and in division 3, or 4, or 5; a pass without distinction will be accepted *pro tanto* for Lower Latin, Lower Greek, and Lower Mathematics.

5. *Oxford University Higher Examination for Women* will be accepted as exempting *pro tanto* for the Arts and Science in the case of Higher Latin, Higher Greek, English, and Lower Mathematics; and if with distinction, for French and German, and Higher Mathematics.

6. *Cambridge University Local Examinations:—*

(*a*) *Junior Locals.* The pass with distinction will be accepted for Lower Mathematics, provided the Candidate has passed in Books I., II., and III. of Euclid, and in Quadratic Equations.

(*b*) *Senior Locals.* The pass will be accepted as exempting *pro tanto* for Lower Latin, and Lower Greek, and for Higher Mathematics; and if with distinction, for Higher Latin, Higher Greek, English, and Modern Languages.

7. *Cambridge University Higher Local Examinations* will be accepted *pro tanto.*

8. *Oxford and Cambridge Schools Examination Board.*

The Lower Certificate will be accepted for Lower Mathematics, provided the candidate has passed in three books of Euclid, and as far as Quadratic Equations in Algebra.

Higher Certificate. The pass will be accepted for Lower Latin, Lower Greek, and Lower Mathematics, provided the latter includes Elementary and additional Mathematics; if with distinction, will be accepted for Higher Latin, Higher Greek, French, German, and Higher Mathematics.

9. *Victoria University.* The Preliminary Examination will be held as exempting from the Preliminary proper, but not from the Examina-

tion required for admission to a graduating class in any language. (See Section iv., Sub-sections (2) (3) of Regulations, pages 103 and 104).

10. For the Preliminary Examination in Arts and Science, the Deans of the Faculties concerned are empowered to accept, *pro tanto*, such examinations qualifying for entrance to recognised Colonial and Foreign Universities (although not included in the list of Equivalent Examinations issued by the Joint Board) as they consider to be sufficient, but on condition that they afterwards report each case to the Senate, and to the Joint Board as soon as possible.

Preliminary Examination in Medicine.[1]

Regulations for the Preliminary Examination for Degrees in Medicine and Surgery, Supplementary to Sections III.-VI. inclusively, pages 347 *and* 348 *hereof, abridged from the Regulations of the Joint Board.*

The papers set in Latin, Greek, and Mathematics are the same as those set on the Lower Standard in these subjects in the Arts and Science Preliminary Examination.

These are defined in the Regulations relating to the Arts and Science Preliminary, as follows:—

The *Latin* Examination on the Lower Standard will be—Translation and Parsing, Prose Composition, Grammar, and Sentences.

The *Greek* Examination on the Lower Standard will be—Translation, Sentences, and Grammar.

Candidates are required to satisfy the Examiners both in composition and in translation.

Mathematics on the Lower Standard will comprise:—

(1) Arithmetic, including Vulgar and Decimal Fractions, Proportion, Percentage, Square Root, Simple Interest.

(2) Algebra, including Fractions, Factors, Square Root, Equations of the First Degree, Simultaneous Equations of the First Degree, Easy Quadratic Equations, Problems leading to the above Equations.

(3) Geometry—Euclid, Books I., II., and III. (or their equivalents), with Easy Deductions. Demonstrations other than Euclid's will be accepted if they assume no propositions which in Euclid's order are subsequent to the proposition under consideration.

The paper in Mathematics will be devoted to the various subjects comprised in as nearly as possible the following proportions: four-ninths to *Geometry*, three-ninths to Algebra, and two-ninths to Arithmetic.

Candidates may obtain full marks by doing correctly about two-thirds of the questions set in each subject; but the Examiners will be entitled

[1] See Examinations accepted as exempting, page 433.

o reject a Candidate who makes in any subject less than a certain minimum of the marks allotted to that subject.

In *English* no set books are prescribed, nor is a general knowledge of the life and works of the greater authors expected of Candidates, but one or two questions may be set, giving an opportunity to Candidates to show a knowledge of famous literary works. The historical questions will not be confined to any one period, but will cover the whole of British History, and will be set in such a way as to give an opportunity to Candidates who have confined their studies to a single period to show their knowledge. A single three hours' paper will be set, containing an Essay, a Paraphrase, two questions on History, two on Geography, four on Grammar (including Correction of Sentences, Parsing, Analysis of Sentences, and Derivations), two of a literary and general kind. Eight answers will be required. The Essay, the Paraphrase, one answer on History, and one on Geography will be compulsory.

French and German.—One paper will be set in French and one in German. The papers will be of a Lower Standard than those set in these subjects in the Arts and Science Preliminary. The time allowed for each of these papers will be three hours. The paper in each subject will comprise questions in Grammar, translation into English, a piece of English, and some short sentences in English of an idiomatic character for translation.

It shall be in the option of any Candidate for the Medical Preliminary to take the papers set on the Higher Standard for the Arts Preliminary in any of the subjects. (See Arts Regulations.)

Candidates who, having taken *English*, *Latin*, *Greek*, *Mathematics*, or a *Modern Language*, on the Higher Standard, as prescribed by the Regulations for the Arts and Science Preliminary, have obtained a satisfactory percentage of marks, will be held to have passed the Medical Preliminary in these subjects, provided that all the required subjects are passed at not more than two Examinations.

Examinations Accepted as Exempting from the Preliminary Examination in Medicine.

Provided always that the Regulations of the General Medical Council regarding the Registration of Students of Medicine be complied with.

1. In terms of the Regulations for Degrees in Medicine and Surgery, "a Degree in Arts or in Science (not being a Degree *honoris causa tantum*) in any of the Universities of the United Kingdom, or in any Colonial or Foreign University, specially recognised for the purpose by the University Court, will exempt from the Preliminary Examination."

In virtue of the powers conferred on them by the Medical Regulations, Section VI., page 348, the Joint-Board have resolved as follows:—

2. Any Candidate who produces a Certificate of having passed the

Preliminary Examination in Arts or Science in any Scottish University, either at the University Examination or through the Leaving Certificates of the Scotch Education Department, or partly at the University Examination, and partly through the Leaving Certificates, will be held to have passed the Preliminary Examination for Medicine, provided that the Examination has included the specified subjects of General Education as required under the Regulations of the General Medical Council, and by the Regulations for Graduation in Medicine and Surgery (Sections III.-VI. inclusive, pages 347 and 348).

3. A Candidate who has passed the Arts and Science Preliminary Examination of the Joint Board in any subject (Higher Grade where there is more than one) recognised for the Medical Preliminary Examination, shall be exempted from further examination in that subject in the aforesaid Preliminary Examination.

4. A Candidate who has obtained the Leaving Certificate (Honours or Higher Grade) of the Scotch Education Department in any subject recognised for the Medical Preliminary Examination, shall be exempted from further examination in that subject in the aforesaid Preliminary Examination.

The Regulation that all the subjects of the Examination shall be passed at one or not more than two Examinations shall not be held to apply to the above cases, 2, 3, and 4. But Candidates complying with these Rules (2, 3, and 4) must obtain a University Certificate specifying the Examinations passed by them which have been accepted as equivalents to the Preliminary, and must present said Certificate to the Medical Registrar in order to registration.

Further, each such Candidate when applying for said Certificate must, if he has not entered for any part of the Preliminary, produce a Matriculation Card from some one of the Scottish Universities.

5. Lower Grade Leaving Certificates of the Scotch Education Department will only be accepted as exempting from the Medical Preliminary Examination, provided the examinations in all the requisite subjects have been passed at one or not more than two Examinations.

6. The following English and Irish University Examinations will be accepted (provided they include all the subjects required under the Regulations of the General Medical Council, and prescribed by the Medical Ordinances of the Scottish Universities Commissioners, see Sections III.-VI. inclusive of Regulations for Graduation in Medicine and Surgery, pages 347 and 348), viz. :—

Oxford. Responsions or Moderations, provided the Candidate pass the Examination of the Joint Board in English.

Senior Local Examinations will be accepted *pro tanto*, provided that, as regards English, the Certificates shall bear that the Candidate has passed in Division 1 of the subject, and in either Division 3, 4, or 5.

Higher Examination for Women will be accepted *pro tanto.*

Cambridge. Previous Examination, provided that Candidates who have passed it prior to Michaelmas 1896 shall pass the Examination of the Joint Board in English. If passed after Michaelmas 1896, the Previous Examination will be accepted as exempting *in toto*.

Senior Local Examinations will be accepted *pro tanto*.

Higher Local Examinations will be accepted *pro tanto*.

Oxford and Cambridge Schools Examination. Higher Certificate will be accepted *pro tanto*, provided that, as regards Mathematics, the Certificate shall bear that the Candidate has passed in both Elementary and Additional Mathematics.

London University. Matriculation Examination.

Dublin, Trinity College. Public Entrance Examination.

Royal University of Ireland. Matriculation Examination.

Victoria University. Preliminary Examination ; Entrance Examination in Arts.

By *pro tanto* is here meant that a certificate of having passed in the Examination referred to in any subject required for the Medical Preliminary Examination, shall, as regards that subject, exempt from further Examination in the said Preliminary Examination, provided that all the required subjects shall be passed at one or not more than two Examinations.

7. The Examinations of the following Indian, Colonial, and Foreign Universities and Colleges, will be accepted (provided the Examinations include all the subjects required by the General Medical Council, and prescribed by the Medical Ordinances of the Scottish Universities Commissioners—see Sections III.-VI. inclusive of Regulations for Graduation in Medicine and Surgery, pages 347 and 348), viz. :—

Universities of (1) *Calcutta*, (2) *Madras*, (3) *Bombay*, (4) *Allahabad*, and (5) *Panjab*.—Entrance Examination.

Universities of (1) *Cape of Good Hope*.—Matriculation Examination ; (2) *Tasmania*—Matriculation Examination ; (3) *New Zealand*—Matriculation and Medical Preliminary Examinations ; (4) *Melbourne*—Matriculation Examination ; (5) *Sydney*—Matriculation Examination ; (6) *Adelaide*—Matriculation Examination, or its substitute, the Senior or Junior Public Examination.

The Provincial Education Department of Ontario.—Departmental Pass Arts Matriculation Examination.

Trinity University, Toronto.—Matriculation Examination

The University of Toronto.—Senior or Junior Matriculation Examination.

Queen's College and University, Kingston.—Matriculation Examination.

M'Gill University.—Matriculation Examination.

King's College, Windsor, Nova Scotia.—Responsions.

Dalhousie College Halifax.—Matriculation Examination.

Mount Allison College, Sackville, New Brunswick.—Matriculation Examination.

The University of Winnipeg.—Preliminary Examination in Arts.

Victoria College, Upper Canada.—Matriculation Examination.

The University of Halifax, Nova Scotia.—Matriculation Examination.

The University of Fredericton, New Brunswick.—Matriculation Examination.

The Western University of Ontario.—Matriculation Examination.

University of Manitoba.—Previous Examination.

Codrington College (*Barbados*).—English Certificate for Students of two years' standing, and Latin Certificate, or "Testamur."

Germany and other Continental Countries.—Gymnasial Abiturienten-Examen, and corresponding Entrance Examinations to the Universities.

8. In the case of Candidates for the Medical Preliminary Examination, who hold qualifications from Foreign or Colonial Bodies, other than Universities, whose certificates are not included in the list of Equivalent Examinations issued by the Joint Board, a Committee in each University, consisting of the Deans of the Faculties of Arts, Science, and Medicine, is empowered to accept such certificates, if it deems them sufficient, provided that all such cases are reported to the Joint Board at their meeting next following.

Class Prize and Honours Lists.

FACULTY OF ARTS.

SUMMER SESSION, 1897.

HUMANITY.

HONOURS CLASS—HONOURS GRADUATION HALF-COURSE.

FIRST-CLASS CERTIFICATES OF MERIT.—1. Harry C. Norman, Devonshire, and Henry C. Liddell, Edinburgh—equal (*Prizes*).

SECOND-CLASS CERTIFICATE OF MERIT.—3. Walter E. Wait, Bournemouth.

LATIN PROSE COMPOSITION.—1. Harry C. Norman; 2. Henry C. Liddell.

SENIOR CLASS.

FIRST-CLASS CERTIFICATES OF MERIT.—1. James Lochhead, Earlston (*Medal*); 2. George Butler, Darlaston, England; 3. Alexander Cunnison, Edinburgh; 4. David Drysdale, Edinburgh; 5. James Melville, Edinburgh; 6. Margaret C. W. Young, Edinburgh, and Henry Speirs, Duns—equal (*Prizes*); 8. John Pattison, Canonbie; 9. Harriet J. C. Maclaren, Edinburgh; 10. Robert D. Bell, Edinburgh.

SECOND-CLASS CERTIFICATES OF MERIT.—11. Kenneth Sutherland-Graeme, Orkney; 12. Alexander C. Murphy, Edinburgh; 13. Ernest Lawson, Fife; 14. Thomas M. Watt, Ayr; 15. David M. Johnstone, Edinburgh; 16. Charles B. Milne, Aberdeen; 17. Sara G. Croal, Edinburgh; 18. Alexander W. Bain, Musselburgh; 19. Thomas Rutherford, Edinburgh; 20. Thomas A. L. Cairns, Portobello; 21. John T. Miller, Edinburgh; 22. Marion A. S. Thomson, Edinburgh.

LATIN PROSE COMPOSITION.—1. James Lochhead (*Prize*); 2. George Butler; 3. Alexander Cunnison; 4. John Pattison; 5. Alexander C. Murphy, Edinburgh, and Henry Speirs—equal; 7. Thomas Rutherford, Edinburgh.

ROMAN HISTORY.—1. George Butler (*Prize*); 2. Harriet J. C. Maclaren, and Robert D. Bell—equal; 4. David Drysdale.

JUNIOR CLASS—PRELIMINARY COURSE.

FIRST-CLASS CERTIFICATES OF MERIT.—1. Bessie Kay Hogg, Edinburgh; 2. Isabella Henry Martin, Edinburgh (*Prizes*); 3. Jessie H. Anderson, Edinburgh; 4. John Leighton Peters, Dundee.

SECOND-CLASS CERTIFICATES OF MERIT.—5. James Cameron, Dingwall; 6. Henry Martyn Stumbles, Essex; 7. Alison T. Cowe, Penicuik; 8. James Reid, Leven.

LATIN PROSE COMPOSITION.—1. Bessie Kay Hogg; 2. Henry M. Stumbles.

JAMES MILL, M.A., *Lecturer.*

GREEK.

HONOURS CLASS—HONOURS GRADUATION HALF-COURSE.

PRIZE AND FIRST-CLASS CERTIFICATE OF MERIT.—1. John Lees, Ayr.

SECOND-CLASS CERTIFICATE OF MERIT.—2. J. B. Jamieson, Portobello.

SENIOR CLASS—PASS GRADUATION HALF-COURSE.

PRIZES AND FIRST-CLASS CERTIFICATES OF MERIT.—1. T. M. Forsyth, Edinburgh; 2. Alexander Cunnison, Edinburgh.

SECOND-CLASS CERTIFICATE OF MERIT.—3. Henry Speirs, Duns.

JUNIOR CLASS—PRELIMINARY COURSE.

SECOND-CLASS CERTIFICATE OF MERIT.—D. K. Bogie, Edinburgh.

A. DOUGLAS THOMSON, M.A., D.Litt., *Lecturer.*

ENGLISH LITERATURE (HONOURS CLASS).

FIRST-CLASS CERTIFICATES.—1. Charles H. Moore, Musselburgh; 2. Thomas Paterson, Leith.

SECOND-CLASS CERTIFICATES.—3. William Porter; 4. George A. Fraser, Edinburgh.

G. GREGORY SMITH, M.A., *Lecturer.*

ELEMENTARY HEBREW.

MEDAL.—W. A. Curtis, M.A.

CERTIFICATES OF MERIT.—W. G. Brown; J. A. Glover.

ELEMENTARY ARABIC.

CERTIFICATES OF MERIT.—Richard Bell, M.A.; A. R. Yeoman, M.A.

A. R. S. KENNEDY, B.D., D.D., *Professor.*

MATHEMATICS.

ADVANCED CLASS—HONOURS HALF-COURSE.

FIRST-CLASS CERTIFICATES.—W. Gentle, Edinburgh (*Prizeman and Medallist*); W. Anderson, East Wemyss; R. M. Shearer; S. F. Stewart, Largs.

SECOND-CLASS CERTIFICATES.—C. R. Sprague, Edinburgh; A. Waddell, Kelso.

HIGHER SENIOR.

PRIZES AND FIRST-CLASS CERTIFICATES.—1. J. S. Ross, Edinburgh (*Medallist*); 2. T. B. Copeland, Edinburgh; 3. W. D. R. Prentice, Edinburgh.

SECOND-CLASS CERTIFICATE.—Miss A. M. Smith, Edinburgh.

LOWER SENIOR.

PRIZE AND FIRST-CLASS CERTIFICATE OF MERIT.—J. A. Ferguson, Edinburgh (*Medallist*).

SECOND-CLASS CERTIFICATES.—W. P. Borland, Prestonpans; Miss M. Cleghorn, Dundee; T. Davidson, Dundee; R. G. Hunter, Edinburgh; J. H. Imrie, Edinburgh; J. B. Jamieson, Portobello; C. G. Mackay, Pitlochry; J. P. M'Gowan, Dumfries; T. A. Menzies, Hull; J. T. Miller, Edinburgh; J. Pryde, Edinburgh; Miss M. G. Smith, Dundee; G. Wilkie, Leven.

CHAS. TWEEDIE, M.A., B.Sc., *Lecturer.*

DYNAMICS.

FIRST-CLASS HONOURS.—1. D. G. Mitchell, Edinburgh (*Medallist*); 2. A. Waddell, Kelso; 3. J. Tait, Orkney; 4. R. G. Wilson, Dundee.

SECOND-CLASS HONOURS.—5. W. R. Halliday, Edinburgh; 6. D. F. Chalmers, Girvan, and R. M. Shearer, Edinburgh—equal; 8. J. C. Cameron, Edinburgh.

C. G. KNOTT, D.Sc., *Lecturer.*

ADVANCED EXPERIMENTAL PHYSICS.

PRIZES AND FIRST-CLASS CERTIFICATES.—1. J. M. Low (*Medal*); 2. J. Lornie.

ADVANCED HONOURS NATURAL PHILOSOPHY (TUTORIAL).

PRIZES AND FIRST-CLASS CERTIFICATES.—1. J. M. Low; 2. H. A. Braine.

W. PEDDIE, D.Sc., *Lecturer.*

WINTER SESSION, 1897-98.

LATIN.

HONOURS CLASS.

FIRST-CLASS CERTIFICATES OF MERIT.—1. James Stirling Ross, Edinburgh; 2. James Crerar, Cumberland (*Medals*); 3. Bernard H. Richardson, Edinburgh; 4. Chrissie M. Ross, Arbroath.

SECOND-CLASS CERTIFICATES OF MERIT.—5. George V. Dunnett, Kilmarnock; 6. Harry C. Norman, Edinburgh; 7. Henry C. Liddell, Edinburgh; 8. Victor Caldwell, Edinburgh.

PROSE COMPOSITION.—James Crerar.

LATIN ESSAYS.—J. S. Ross.

VERSE COMPOSITION.—James Crerar.

HISTORY OF LITERATURE.—J. S. Ross.

ENGLISH ESSAY.—James Crerar and Chrissie M. Ross—equal.

VACATION EXERCISES (Summer 1897).—Composition—W. Rennie. Essay—G. V. Dunnett.

ENTITLED TO FIRST-CLASS CERTIFICATES, BUT NOT COMPETING.—W. Rennie, Addiewell; J. Lees, Ayr. SECOND-CLASS—Alexander Flint, Edinburgh.

SENIOR CLASS.

FIRST-CLASS CERTIFICATES OF MERIT.—1. James Anderson, Forres; Alexander Cunnison, Edinburgh; Peter Bell Donaldson, Arbroath—equal (*Medals*); 4. John Mackinnon Hendrie, Dumfries; 5. Roderick Barron, Kingussie; Douglas G. Robertson, Edinburgh—equal; 7. John Inch Low, Blairgowrie; 8. James Brown Duncan, Forfar; 9. Francis H. T. Gray, Elgin; 10. Samuel G. Corner, Inverness; William Pryde, Edinburgh—equal; 12. Francis J. Gordon, Edinburgh (*Prizes*); 13. William N. Prophet, Forfar; John S. Wilson, Edinburgh—equal; 15. Alexander Duthie, Boston, Mass.; 16. John R. Cuthbert, Ayr; William H. Nelson, Rosewell; Alfred J. Sturrock, Linlithgow—equal: 19. James S. Kinghorn, Edinburgh; Samuel Robertson, Edinburgh—equal; 21. William Jardine, Haddington; 22. John M. B. Duncan, Edinburgh.

SECOND-CLASS CERTIFICATES OF MERIT.—23. David C. Davidson, Edinburgh; Marshall M. Craig, Edinburgh—equal; 25. Alexander W. MacClymont, Roxburghshire; 26. John C. Fenton, Portobello; 27. Robert W. Johnstone, Edinburgh; Ernest Shearer, Orkney—equal: 29. G. Turner Ford, Portobello; Thomas S. Lindsay, Cowdenbeath; Robert C. Wallace, Orkney—equal; 32. Norman J. Henderson, Edinburgh; 33. Alexander Robertson, Queensferry; 34. Alexander MacRae, Kintyre; Agnes M'G. Smith, Edinburgh; John Watson, Milnathort—equal; 37. Andrew B. Lorimer, Thornhill; John MacDougall, Kintyre; James Murray, Dundee—equal; 40. George L. Brander, Brooklyn, U.S.A.; William A. Fleming, Edinburgh; T. J. Carlyle Gifford, Edinburgh—equal; 43. James A. Glover, jun., Dumfries; 44. M. F. Simpson, Edrom; 45. John MacLeod, Thurso; Janie Middleton, Edinburgh—equal; 47. Bessie K. Hogg, Egypt; James Williamson, Kirkcudbright—equal; 49. Peter M'Ewan, Perth.

LATIN PROSE COMPOSITION.—1. John R. Cuthbert; 2. R. Barron and J. B. Duncan—equal; 4. D. G. Robertson (*Prizes*).

HONOURABLE MENTION.—5. J. M. B. Duncan and G. T. Ford—equal; 7. J. S. Kinghorn and F. J. Gordon—equal; 9. E. Shearer; 10. A. Cunnison and P. B. Donaldson—equal.

HISTORY AND LITERATURE.—1. A. Cunnison (*Prize*). HONOURABLE MENTION.—2. W. N. Prophet and P. B. Donaldson—equal; 4. A. J. Sturrock.

JUNIOR CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES OF MERIT.—1. Catherine A. Nicolson, Edinburgh (*Medal*); 2. Robert F. Lindsay, Pittenweem; 3. George W. Jones, Dundee, and Alexander J. Ross, Edinburgh —equal; 5. Andrew S. Ogilvie, Broughty Ferry; 6. Peter White, Tayport.

SECOND-CLASS CERTIFICATES OF MERIT.—7. Frank Ross, Coupar-Angus; 8. Agnes A. MacGregor, Dumfries; 9. Peter Ross, Thurso; 10. Jane Anderson, Orkney, and Mary L. M. Elliot, Lancashire—equal; 12. William G. Robertson, Roxburghshire; 13. Charles L. Hunter, St Boswells; 14. James G. Glen, Edinburgh; 15. James Reid, Leven, and Ernest H. Wishart, Prestonkirk—equal.

LATIN PROSE COMPOSITION.—1. G. W. Jones (*Prize*). HONOURABLE MENTION.—2. Catherine A. Nicolson; 3. A. J. Ross; 4. R. F. Lindsay; 5. P. White; 6. C. L. Hunter; 7. Agnes A. MacGregor.

LITERATURE AND HISTORY.—1. A. J. Ross (*Prize*). HONOURABLE MENTION.—2. Catherine A. Nicolson; 3. A. S. Ogilvie; 4. G. W. Jones.

W. R. HARDIE, M.A., *Professor.*

GREEK.

HONOURS CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES OF MERIT.—1. J. Crerar, Cumberland (*Medal*); 2. Augusta M. C. Davidson, Edinburgh; 3. J. Y. Bell, Edinburgh.

SECOND-CLASS CERTIFICATES OF MERIT.—4. C. G. Mackay, Pitlochry; 5. B. H. Richardson, Edinburgh; 6. Victor Caldwell, Edinburgh; 7. J. H. Cattanach, Edinburgh; 8. J. S. Ross, Edinburgh.

COMPOSITION PRIZE.—Augusta M. C. Davidson. HONOURABLE MENTION.—J. Crerar.

ENTITLED TO FIRST-CLASS CERTIFICATE, BUT NOT COMPETING.—Wm. Rennie, Addiewell.

SENIOR CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES OF MERIT.—1. W. N. Prophet, Forfar, and D. G. Robertson, Edinburgh — equal (*Medals*); 3. Roderick Barron, Laggan, and J. Brown Duncan, Forfar—equal; 5. J. S. Kinghorn, Edinburgh; 6. P. B. Donaldson, Arbroath, and W. H. Nelson, Rosewell—equal; 8. F. J. Gordon, Edinburgh; 9. James Anderson, Forres; 10. Alex. Cunnison, Edinburgh; F. H. T. Gray, Elgin; T. Nicol, Edinburgh; and Wm. Pryde, Edinburgh—equal.

SECOND-CLASS CERTIFICATES OF MERIT.—14. J. R. Cuthbert, Ayr; 15. S. G. Corner, Inverness, and Chrissie M. Ross, Arbroath—equal; 17. N. J. Henderson, Edinburgh, and A. J. Sturrock, Lin-

lithgow—equal; 19. A. Duthie, Montrose; 20. Isabella W. Stevenson, Edinburgh; 21. D. C. Davidson, Edinburgh, and A. W. M'Clymont, Roxburghshire—equal; 23. J. M. Hendrie, Dumfries; Wm. Jardine, Haddington; and Macduff F. Simpson, Berwickshire—equal; 26. M. Millar Craig, Edinburgh; G. T. Ford, Portobello; and R. C. Wallace, Orkney—equal; 29. R. W. Johnstone, Edinburgh, and P. M'Ewan, Perth—equal; 31. J. C. Fenton, Portobello; 32. J. M'Dougall, Kintyre, and J. M. B. Duncan, Edinburgh—equal.

COMPOSITION PRIZES.—1. W. N. Prophet and D. G. Robertson—equal; 3. J. S. Kinghorn.

HONOURABLE MENTION.—4. Rod. Barron and W. H. Nelson—equal.

HISTORY PRIZE.—J. Brown Duncan and W. N. Prophet—equal.

HONOURABLE MENTION.—Rod. Barron, D. G. Robertson, and Chrissie M. Ross—equal.

LITERATURE PRIZE.—J. Brown Duncan.

HONOURABLE MENTION.—Chrissie M. Ross.

JUNIOR CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES OF MERIT.—1. Alex. M. Shaw, Inverness (*Medal*); 2. Jane Anderson, Orkney; 3. R. F. Lindsay, Pittenweem.

SECOND-CLASS CERTIFICATES OF MERIT.—4. Charles L. Hunter, St Boswells; 5. George Walker, Inverness.

HISTORY PRIZE.—Alex. M. Shaw and Joe Thomson, Thornhill—equal.

LITERATURE PRIZE.—Alex. M. Shaw.

COMPOSITION PRIZE.—Jane Anderson and Alex. M. Shaw—equal.

HONOURABLE MENTION.—Charles L. Hunter, R. F. Lindsay.

GRAMMAR PRIZE.—Alex. M. Shaw.

HONOURABLE MENTION.—Charles L. Hunter.

S. H. BUTCHER, LL.D., *Professor.*

RHETORIC AND ENGLISH LITERATURE.

HONOURS CLASS (FULL COURSE).

PRIZE AND FIRST-CLASS CERTIFICATE.—Margaret Cleghorn, Dundee (*Medallist*).

SECOND-CLASS CERTIFICATE.—Charles Henry Moore, Welwyn.

ORDINARY CLASS.

CLASS PRIZES AND FIRST-CLASS CERTIFICATES.—1. James Crerar, Cumberland; 2. Ian D. Colvin, Inverness (*Medallists*); 3. Alys Beatrix Biscombe, Calais; 4. John MacRae, Kintyre; 5. Mary Williamson, Allahabad; 6. Malcolm Campbell, North Knapdale; 7. W. A. Mowat, Blackheath, London; 8. James Colville, England; 9. John Pattison, Dumfriesshire, and William D.

Prentice, Edinburgh—equal; 11. Janet Catanach, Scotland; 12. G. H. Donald, Girvan; 13. William Geddie, Edinburgh; 14. George Fraser, Edinburgh; 15. J. B. Lorimer, Edinburgh, and Isabella C. Black, East Calder—equal.

SECOND-CLASS CERTIFICATES.—17. Lizzie G. Drummond, Scotland, and Marion J. Gray, Edinburgh—equal; 19. Marie Goudie, Shetland; 20. Annie Gow, Coupar-Angus; 21. W. J. D. Hardinge, Belfast; 22. Hugh Oswald, Kirkcaldy, and Catherine B. Shaw, Inverness—equal; 24. Kenneth Cameron, Inverness; 25. Helen Hoyle, Rochdale; 26. Minnie Barclay, Coupar-Angus; Robert Millar, Edinburgh; and Alexander M. Shaw, Inverness—equal; 29. James H. Duncan, Lochgelly; Annie L. Mackay, Scotland; and A. C. Murphy, Edinburgh—equal; 32. J. A. Aitchison, Falkirk, and Peter Campbell, Scotland—equal; 34. Donald Grant, Carr Bridge; A. G. Cairns, Hamilton; and Ella Ferrier, Scotland—equal.

ESSAY PRIZES AND FIRST-CLASS CERTIFICATES.—1. Ian D. Colvin, Inverness, and James Crerar, Cumberland—equal (*Medallists*); 3. John MacRae, Kintyre; 4. Malcolm Campbell, North Knapdale; 5. James Colville, England; 6. Marion J. Gray, Edinburgh; 7. Alys Beatrix Biscombe, Calais; 8. Isabella C. Black, East Calder; 9. W. A. Mowat, Blackheath, London.

SECOND-CLASS CERTIFICATES.—10. G. A. Donald, Girvan, and Catherine Shaw, Inverness—equal; 12. Annie Mackay, Scotland; John Pattison, Dumfriesshire; and William D. Prentice, Edinburgh—equal; 15. Hugh Oswald, Kirkcaldy; 16. A. G. Cairns, Hamilton; T. Gray Philip, Scotland; Alexander M. Shaw, Inverness; and Mary Williamson, Allahabad—equal; 20. David R. Armit, Arbroath; Minnie Barclay, Coupar-Angus; and Robert G. John, Manchester—equal.

PRIZE FOR VERSE.—Ian D. Colvin, Inverness.

GEORGE SAINTSBURY, M.A., *Professor.*

OLD AND MIDDLE ENGLISH.

HONOURS COURSE.

SECOND-CLASS CERTIFICATES.—1. William Porter, Edinburgh; 2. Charles H. Moore, Musselburgh.

G. GREGORY SMITH, M.A., *Lecturer.*

FRENCH.

HONOURS CLASS.

PRIZE AND FIRST-CLASS CERTIFICATE.—1. James Melville (*Medallist*).

FIRST-CLASS CERTIFICATES.—2. James Oliver; 3. Mary Tweedie.

SECOND-CLASS CERTIFICATE.—4. Jessie MacKechnie.

ORDINARY CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES.—1. Marion Cameron (*Medallist*); 2. William Sturrock; 3. Mary Clark.

FIRST-CLASS CERTIFICATES.—4. Charles Grant; 5. J. K. Macgregor; 6. Johanna Thomsen; 7. Hugh Oswald; 8. G. L. Turnbull; 9. G. M. Tanti; 10. Henry Lee; 11. Elizabeth Clements.

SECOND-CLASS CERTIFICATES.—12. Robert Taylor; 13. J. Methven; 14. A. Murphy; 15. R. W. Cockburn; 16. Elizabeth Cowe; 17. Minnie Barclay; 18. Alda Matheson; 19. Jenny Murray.

CHAS. SAROLEA, Ph.D., D.Litt., *Lecturer.*

GERMAN.

HONOURS CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES.—1. Mary Tweedie, Edinburgh, and James Melville, Scotland—equal (*Medallists*).

FIRST-CLASS CERTIFICATES.—3. Jessie A. M'Kechnie, Edinburgh.

ORDINARY CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES.—1. Isabella Watt Stevenson, Edinburgh (*Medallist*); 2. Theodore Benfey Copeland, Edinburgh; 3. R. Taylor, India, and Johanne F. Thomsen, Scotland—equal.

FIRST-CLASS CERTIFICATES.—5. Jessie Lees, Scotland, and Isabella Ogilvie, Scotland—equal; 7. Jane D. Love, Ayr.

SECOND-CLASS CERTIFICATES.—9. Helen A. Lawson, Alloa; 10. Margaret Y. Stewart, Scotland; 11. Marion Cameron, Edinburgh.

OTTO SCHLAPP, Ph.D., *Lecturer.*

SANSKRIT AND COMPARATIVE PHILOLOGY.

ADVANCED CLASS.

(Third Year).

SPECIAL CERTIFICATES OF HIGH DISTINCTION.—Sidney G. Campbell, M.A.; Kenneth N. Knox.

JUNIOR CLASS.

FIRST-CLASS CERTIFICATES OF MERIT.—1. Theodore B. Copeland (*Class Medal and Muir Prize of £3, 3s.*); 2. Arthur Cotter; 3. H. B. Joshi.

J. EGGELING, Ph.D., *Professor.*

CELTIC LANGUAGE AND LITERATURE.

CELTIC CLASS.

PRIZE AND FIRST-CLASS CERTIFICATE. — Hector J. Anderson, Ardlui (*Medallist*).

ADVANCED CELTIC CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES.—1. Hector J. Anderson, Ardlui (*Medallist*); 2. Malcolm Campbell, North Knapdale.

GAELIC CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES.—1. Alan O. Anderson, Edinburgh, and Malcolm Campbell, North Knapdale—equal (*Medallists*); 3. John M. M'Naughton, Kenmore.

SPECIAL PRIZES.—£10, 10s. given by the Highland Society of London —Hector J. Anderson. Book Prizes, given by John Mackay, Esq., Hereford, for Excellence in Scottish Gaelic—Celtic Class —Hector J. Anderson. Gaelic Class — Alan O. Anderson, Malcolm Campbell.

DON. MACKINNON, M.A., *Professor.*

LOGIC AND METAPHYSICS.

ADVANCED CLASS—METAPHYSICS.

FIRST-CLASS CERTIFICATES.—1. D. H. M'Gregor, Dumfries (*Bruce of Grangehill and Falkland Prize and Medal*); 2. A. S. Ballantyne, Galashiels, and J. A. Gray, Edinburgh—equal (*Prizes*).

SECOND-CLASS CERTIFICATE.—4. Edith Hooper, Kent.

ORDINARY CLASS—LOGIC AND PSYCHOLOGY.

FIRST-CLASS CERTIFICATES.—1. T. B. Copeland, Edinburgh; J. M. Dunnett, Kilmarnock; and T. F. Scott, Cromarty—equal (*Medals*); 4. A. A. Hall, Leith; 5. T. C. Adam, Dunblane; 6. Marion I. Gray, Edinburgh; Henry Spiers, Duns; and W. A. Mowat, Blackheath, London—equal; 9. G. V. Dunnett, Kilmarnock; 10. J. B. Jamieson, Portobello; 11. D. J. Young, Blairgowrie; and W. S. Colville, Campbeltown—equal (*Prizes*); 13. J. I. Low, Blairgowrie; 14. D. M. Maclean, Muir of Ord; 15. Elizabeth I. M'Pherson, Edinburgh; 16. R. H. Macnair, Edinburgh; W. Mackenzie, Edinburgh; and Helen J. D. Riach, Edinburgh — equal; 19. George Butler, Darlaston; 20. H. J. Anderson, Ardlui; 21. Isabella W. Stevenson, Edinburgh; 22. Alys B. Biscombe, Edinburgh; J. A. Ferguson, Edinburgh; and Alexander Mackie, Edinburgh—equal

SECOND-CLASS CERTIFICATES.—25. C. W. Rixon, Wilts; 26. Bertha J. M. Croal, Edinburgh, and John Macrae, Clachan—equal; 28. W. Geddie, Edinburgh; 29. Lizzie Y. Drummond, Thornhill: 30. Hugh Oswald, Kirkcaldy, and T. P. Young, Edinburgh—equal; 32. W. H. Meikle, Inverary; 33. C. F. Grant, Dundee; 34. James Pryde, Edinburgh, and John Purves, Edinburgh—equal; 36. D. M. Callender, Edinburgh.

A. SETH PRINGLE PATTISON, LL.D., *Professor.*

MORAL PHILOSOPHY.

HONOURS CLASS.

FIRST-CLASS CERTIFICATES AND PRIZES.—1. David H. Macgregor, Dumfries (*Medallist*); 2. Archibald S. Ballantyne, Galashiels,

and Lilias A. G. Fraser, Edinburgh—equal; 4. J. Adam Gray, Edinburgh.

ORDINARY CLASS.

First-Class Certificates.—1. Charles G. Mackay, Pitlochry; 2. John M. Shaw, Inverness (*Medals*); 3. James Colville, Liverpool; 4. James S. Ross, Edinburgh; 5. Agnes M'Gregor Smith, Edinburgh (*Elizabeth Hamilton Prize*), and Geo. Wedderspoon, Fort-George—equal; 7. Robt. G. B. Millar, Edinburgh, and Marion J. G. Ridpath, Edinburgh—equal (*Prizes*); 9. Euphemia W. Menzies, Inverkeithing; 10. R. S. Enever-Todd, Musselburgh; 11. Annie L. Mackay, Arbroath; 12. Peter Campbell, Oban; 13. Donald M. Maclean, Ross-shire; 14. George A. Fraser, Edinburgh; 15. C. W. Rixon, Wiltshire; 16. Jane B. Imrie, Castle-Douglas.

Second-Class Certificates.—17. Sara G. Croal, Edinburgh, and Thomas Paterson, Edinburgh—equal; 19. John Bell, Langholm; 20. Hugh S. Winchester, Morayshire; 21. David K. Bogie, Scotland; 22. Magnus M. Mills, Leith; 23. A. G. Cairns, Edinburgh; 24. Jane M. Robertson, Dumfries; 25. Joseph E. Richers, West Hartlepool; 26. Daniel A. Morrison, Perthshire; 27. George H. Donald, Mertoun; 28 James Pryde, Edinburgh; 29. Jane Drinnan, Polmont, and Ernest Jessop, Huddersfield—equal; 31. James M. Hogge, Scotland; William K. H. Macdonald, London; and William Murdie, Sutherlandshire—equal.

Special Study of Kant's Ethics.—1. John M. Shaw, Inverness (*Medal*); 2. James Colville, Liverpool, and Charles G. Mackay, Pitlochry—equal (*Prizes*); 4. R. S. Enever-Todd, Musselburgh; 5. James S. Ross, Edinburgh, and Agnes M. Smith, Edinburgh—equal.

CHARLES DOUGLAS, M.A., D.Sc., *Interim-Professor.*

COMMERCIAL AND POLITICAL ECONOMY AND MERCANTILE LAW.

Prizes.—1. Alexander Darroch, Edinburgh (*Medal and Merchant Company's Prize of £10, 10s.*); 2. James Drever, Stromness (*George Watson's Prize*); 3. J. Chalmers Leighton, M.A., Dundee, and William D. R. Prentice, Joppa—equal (*Daniel Stewart's Prize*); 5. Donald J. Boyd, Edinburgh; 6. Joseph H. Cattanach, Edinburgh, and S. Swaminadhan, India—equal; 8. T. Fraser Scott, Cromarty; 9. John M'Farlane, Prestonkirk; 10. James Barron, Inverness.

Honours Certificates.—11. James Aim, Kirkwall; 12 Walter E. Wait, Bournemouth; 13. Jessie Chrystal Macmillan, B.Sc., Edinburgh, and William R. Halliday, Edinburgh—equal; 15. George Wedderspoon, Croy; 16. Alexander Grant, Banffshire; 17. Fred C. Minto, Edinburgh; 18. P. L. Cattanach, Edinburgh;

19. D. Duncan Paton, Carnoustie; 20. John Ambrose, Blairgowrie; 21. Charles B. Milne, Edinburgh; 22. Andrew R. M'Master, Montreal; 23. John H. Imrie, Edinburgh; 24. Thomas Davidson, Edinburgh.

ESSAYS.—Jessie Chrystal Macmillan (*Prize*); 2. T. F. Scott and W. R. Halliday—equal.

HONOURABLE MENTION FOR ONE ESSAY.—A. R. M'Master; Iain Ramsay, Islay; James Barron.

J. SHIELD NICHOLSON, D.Sc., *Professor.*

THEORY, HISTORY, AND ART OF EDUCATION.

MEDALLISTS.—James Drever, M.A., and G. R. T. Ross, M.A.—equal.

FIRST-CLASS CERTIFICATES.—1. James Drever, M.A., and G. R. T. Ross, M.A.—equal; 3. Sidney G. Campbell, M.A.; 4. Alys B. Biscombe; 5. David Young; 6. J. T. Young; 7. Lucy Harris; 8. Catherine Scott Moncrieff; 9. Margaret C. Watson; 10. Mary E. Dale; 11. Robert Hamilton; 12. Margaret S. Govan; 13. Robert Nicol; 14. Harry Fraser; 15. John Macleod; 16. Annie Dempster; 17. Elizabeth Miller; 18. Bessie B. Bird; 19. Jessie R. Connell; 20. Donald Grant; 21. James Hunter; 22. Chrissie Black; 23. Joanna Brock; 24. Annie Robertson.

S. S. LAURIE, LL.D., *Professor.*

MATHEMATICS.

ADVANCED HONOURS CLASS.

FIRST-CLASS CERTIFICATES.—1. H. Mitchell, Argyleshire (*Prize and Medal*); *E. M. Anderson, Edinburgh; R. D. Bell, Edinburgh; R. H. Macnair, Edinburgh; *J. B. Meiklejohn, Thurso; *J. T. Young, Edinburgh.

SECOND-CLASS CERTIFICATES.—*D. Banks, Wigtown; D. Drysdale, Edinburgh; Miss M. Forrest, Edinburgh; *P. S. Hardie, Edinburgh; *J. Lornie, Perthshire.

INTERMEDIATE HONOURS CLASS.

FIRST-CLASS CERTIFICATES.—1. R. M. Shearer, Edinburgh (*Prize and Medal*); E. Blades, Armadale; J. M. Dunnett, Kilmarnock; A. Milne, Edinburgh.

SECOND-CLASS CERTIFICATES.—C. E. Fawsitt, Glasgow; D. G. Mitchell, Edinburgh; J. M. Newton, Broughty Ferry; S. F. Stewart, Largs; Miss J. C. Thomson, Rothesay; H. Wilkie, Lochgelly.

SENIOR CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES.—1. D. E. Cameron, Stanley (*Medal*); 2. H. J. Anderson, Ardlui, and G. Wilkie, Leven—

* Attending the class for the second time, and therefore not eligible for prizes.

equal; 4. J. Murray, Dundee; and W. D. R. Prentice, Joppa—equal; 6. J. G. Sutherland, Wick; 7. Miss M. W. Henderson, Edinburgh; 8. A. R. Normand, Edinburgh, and Miss J. Middleton, Fife—equal; 10. J. A. Ferguson, Edinburgh; 11. A. Thomson, Rothesay; 12. A. F. M. Clark, Kirkcaldy.

SECOND-CLASS CERTIFICATES.—Miss M. D. Black, East Calder; W. P. Borland, Prestonpans; Miss C. A. Cameron, Stanley; M. Campbell, North Knapdale; P. R. Chalmers, Blairgowrie; Miss E. Cowe, Penicuik; D. W. Durie, Collessie; W. A. Forsyth, Galashiels; D. P. Grubb, Dundee; T. S. Lindsay, Cowdenbeath; A. B. Lorimer, Dumfries; J. P. M'Gowan, Dumfries; K. Maclennan, Ross-shire; Miss J. M. Murray, Ayr; G. Philip, Ross; E. R. I. Stevenson, Broughty Ferry; W. K. Tait, Caithness; J. Watson, Milnathort; D. J. Young, Blairgowrie.

The Newton Bursary in Mathematics has been awarded to D. E. Cameron, Stanley.

JUNIOR CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES.—1. G. W. Jones, Dundee (*Medal*); 2. Miss M. T. Ross, Montrose; 3. G. Mill, Edinburgh; 4. F. Ross, Coupar-Angus; 5. A. J. Ross, Edinburgh; 6. A. S. Ogilvie, Broughty Ferry; 7. P. White, Tayport; 8. Miss A. S. Gow, Coupar-Angus; A. Robertson, South Queensferry; and F. D. Sime, Fife—equal.

SECOND-CLASS CERTIFICATES.—I. Ash, Perth; Miss M. L. M. Elliot, Lancashire; Mrs G. Etchison, Washington, D.C.; J. G. Glen, Edinburgh; R. D. S. Grant, Scotland; A. Inglis, Kirkcaldy; W. M'Gregor, Edinburgh; W. M'Rae, Edinburgh; J. C. Morgan, Ross-shire; Miss C. A. Nicolson, Edinburgh; J. Reid, Leven; W. G. Robertson, Minto; P. Ross, Caithness; J. Y. Sutherland, Shetland; A. Wood, Dundee.

The Kelland Prize, open to members of the Junior Class of the previous winter session, was awarded to T. S. Lindsay, Cowdenbeath.

G. CHRYSTAL, LL.D., *Professor.*

NATURAL PHILOSOPHY.

ADVANCED CLASS.

PRIZEMEN.—1. J. M. Low, Leith, and H. Mitchell, Scotland—equal (*Medallists*); 3. J. Lornie, East Lothian.

SECOND-CLASS CERTIFICATES.—4. G. A. Russell, Scotland; 5. D. Banks, Wigtownshire.

ORDINARY CLASS—HIGHER DIVISION.

PRIZEMEN.—1. A. Thomson, Rothesay (*Medallist*); 2. J. G. Sutherland, Scotland

Mr A. R. Low would have occupied a distinguished place had he not been disabled by illness.

LOWER DIVISION.

PRIZEMEN.—1. W. Gentle, Dundee; 2. A. R. Normand, Scotland (*Medallists*); 3. W. Scott, Edinburgh; 4. D. E. Cameron, Perthshire; 5. R. Nicol, Scotland; 6. A. G. Cairns, Hamilton; E. R. I. Stevenson, Broughty Ferry; and Miss M. C. W. Young, Edinburgh—equal; 9. J. Garrioch, Orkney; 10. T. G. Philip, Scotland; 11. Miss J. M. Macqueen, Ross-shire; and W. K. Tait, Caithness—equal; 13. Miss A. G. Clark, Edinburgh; J. Girdwood, Scotland; and Miss E. J. M'Pherson, Edinburgh—equal; 16. J. Graham, Lochmaben; Miss B. K. Hogg, Egypt; and J. C. Ritchie, Scotland—equal.

SECOND-CLASS CERTIFICATES.—19. J. G. Hunter, Hawick; 20. P. R. Chalmers, Scotland; and D. W. Durie, Collessie—equal; 22. R. D. S. Grant, Scotland; 23. W. Sturrock, Scotland; 24. D. M. Crichton, Scotland; and Miss E. A. Duncan, Edinburgh—equal; 26. J. A. Ferguson, Scotland; 27. Miss L. E. Macfarlane, Prestonkirk; 28. H. Crombie, Perthshire; 29. A. F. M. Clark, Kirkcaldy; and R. Hamilton, Scotland—equal; 31. D. Heggie, Ireland; 32. J. J. Donaldson, Scotland; and G. O. M'Nab, Leith—equal; 34. R. H. Moar, Orkney.

PRIZES FOR BEST ANSWERING IN THE ORDINARY EXAMINATIONS.—1. W. Gentle; 2. A. Thomson.

The Newton Bursary is awarded to W. Gentle.

PHYSICAL LABORATORY.

HIGHLY COMMENDED.—*Summer* 1897.—D. Drysdale, D. M. Johnstone, D. G. Mitchell, R. M. Shearer, J. Tait, A. Waddell. *Winter*, 1897-98.—E. Blades, D. W. Durie, G. Millikin, A. Milne.

The Neil-Arnott Scholarship is awarded to John Tait, and the Donald Fraser Bursary to A. Milne.

P. G. TAIT, M.A., *Professor.*

NATURAL PHILOSOPHY.

INTERMEDIATE HONOURS.

FIRST-CLASS HONOURS.—1. E. Blades, Armadale (*Medallist*); 2. D. Drysdale, Dunfermline; 3. G. F. Stewart, Largs.

SECOND-CLASS HONOURS.—4. R. D. Bell, Edinburgh; 5. Jeanie C. Thomson, Glasgow; 6. A. Milne, Edinburgh; 7. A. Waddell, Edinburgh; 8. J. M. Newton, Broughty Ferry; 9. D. M. Johnstone, Edinburgh; 10. Aidan Henderson, England.

J. Lochhead was Third in the 1st Examination, but was prevented by illness from attending the 2nd Examination. H. A. Braine obtained highest marks, but had already attended Honours Classes.

C. G. KNOTT, D.Sc., *Lecturer.*

BRITISH CONSTITUTIONAL HISTORY.

HONOURS CLASS.

1. Alex. B. Robb (*1st Prize*); William Porter (*prox. accessit. 2nd Prize.*)

J. KIRKPATRICK, M.A., LL.D., *Professor.*

HISTORY.

SENIOR CLASS.

"Great Britain and Europe, 1815-1878."

FIRST-CLASS CERTIFICATE.—1. Alexander B. Robb, Armadale, W. Lothian (*Medal and First Prize*).

SECOND-CLASS CERTIFICATES.—2. Andrew Ross M'Master, Montreal; 3. Charlotte Moore, Shelbyville, Kentucky.

JUNIOR CLASS.

"General British History."

PRIZES AND FIRST-CLASS CERTIFICATES.—1. James Barron, Inverness (*Medallist*); 2. Robert George Paterson, Edinburgh; 3. James Bryce Jamieson, Portobello; 4. Alexander Cormack, Edinburgh; T. Alexander Menzies, Edinburgh; John Millar, Barhill, Ayrshire; and Walter Ernest Watt, Bournemouth—equal; 8. James Young Bell, Edinburgh.

SECOND-CLASS CERTIFICATES.—9. Mary Gordon Williamson, Edinburgh; 10. John Riddell Hutton, Birkenhead; Robert William Johnstone, Edinburgh; and Oswald B. Milligan, Edinburgh—equal; 13. Lucy E. M'Farlane, Prestonkirk; Euphemia W. Menzies, Inverkeithing; and Harry M. Willsher, W. Newton-on-Tay—equal; 16. Peter D. Gray, Stirling; Arthur C. Taylor, Edinburgh; and James Wight, Dundee—equal; 19. Helen S. Neill, Edinburgh; and Charles W. G. Taylor, Edinburgh—equal; 21. Ian D. Colvin, Inverness; and D. G. Macnaughten Leith, Edinburgh—equal; 23. David D. Paton, Carnoustie; 24. K. M. Sutherland Græme, Orkney; 25. John A. Fotheringham, Orkney.

G. W. PROTHERO, D.Litt., *Professor.*

FINE ART.

MEDAL AND FIRST-CLASS PRIZE.—Hans F. Eggeling.

SECOND PRIZE.—Harry F. Allan.

COUSIN PRIZE FOR ESSAYS.—Hans F. Eggeling.

CLASSICAL ARCHÆOLOGY (HONOURS COURSE.)—No competitive examination.

G. BALDWIN BROWN, M.A., *Professor.*

Faculty of Science.

SUMMER SESSION, 1897.

STRUCTURAL AND FIELD GEOLOGY.

MEDALS AND HONOURS CERTIFICATES.—1. E. Masson Anderson, Falkirk, and Robert Inglis, Crieff—equal.

HONOURS CERTIFICATES.—3. J. Chalmers Leighton, Dundee; 4. Richard H. Moar, Stromness; 5. Malcolm M'Larty, Greenock; 6. Eric A. Nobbs, Edinburgh; 7. Arthur D. Yule, Forfarshire; 8. J. S. Allison, Edinburgh; 9. George S. Dickson, Blairgowrie, and David P. Grubb, Dundee—equal; 11. J. D. Eastham, Lancashire, and H. S. Winchester, Burghead—equal; 13. D. M. R. Crichton, Scotland; 14. J. O. Peet, Lancashire; 15. David Stevens, Bridge of Earn; 16. J. B. Lorimer, Edinburgh; 17. H. C. Sampson, India, and James Malloch, Newcastle-on-Tyne—equal; 19. E. D. W. Greig, Edinburgh; 20. Charles E. Legat, Musselburgh; 21. Peter Drummond, Edinburgh; 22. G. W. Balfour-Kinnear, Edinburgh; 23. R. W. Macluckie, Stirling; 24. P. H. Guthrie, Liberton; 25. Samuel Milligan, Thornhill; 26. E. S. Edie, Anstruther, and Oswald B. Milligan, Aberdeen—equal.

JAMES GEIKIE, D.C.L., LL.D., *Professor.*

PETROLOGY.

1. E. M. Anderson (*Medallist*); 2. J. H. Harvey Pirie; 3. D. Menzies; 4. R. Ingles.

JOHN S. FLETT, M.B., B.Sc., *Lecturer.*

ENGINEERING FIELDWORK.

1. H. H. Simpson (*Medallist*); 2. H. C. Sampson; 3. A. C. Smith; 4. C. E. Legat; 5. W. G. Mason; 6. David Stevens; 7. C. R. Sprague; 8. A. Fraser; 9. Patrick M'Master; 10. John Leslie; 11. R. W. Macluckie; 12. S. F. Ashby, G. F. Cochrane, and G. W. Profeit—equal.

G. F. ARMSTRONG, M.A., M.Inst., C.E., *Professor.*

PLANT PHYSIOLOGY.

HONOURS CERTIFICATE.—Andrew Ross, Ross-shire.

W. G. SMITH, B.Sc., Ph.D., *Lecturer.*

WINTER SESSION, 1897-98.

APPLIED MATHEMATICS.

DYNAMICS.

FIRST-CLASS HONOURS.—1. D. Stevens, Bridge of Earn (*Medallist*);

SECOND-CLASS HONOURS.—2. R. W. Macluckie, Stirling; 3. H. H. Simpson, Edrom.

C. G. KNOTT, D.Sc., *Lecturer.*

ASTRONOMY.

HONOURS CERTIFICATES.—1. Alan W. C. Menzies, M.A., Cert. (*Medal and Prize*); 2. Robert Horn; 3. James R. Milne.

RALPH COPELAND, Ph.D., *Professor.*

GEOLOGY AND MINERALOGY.

MEDALS AND HONOURS CERTIFICATES.—1. James P. Hill, Scotland, and Alice B. Lennie—equal.

HONOURS CERTIFICATES.—3. C. B. Crompton, London; 4. J. Chalmers Leighton, Dundee; 5. J. W. Eastham, England, and Mowbray Ritchie, Edinburgh—equal; 7. John Methven, Kinghorn; 8. J. M. Newton, Scotland; 9. A. Young, Scotland; 10. David P. Grubb, Dundee, and James E. M. Brown, Mauritius—equal; 12. Rod. Barron, Scotland, and A. W. Mackie, Lochee—equal; 14. C. A. Wood, Yorkshire; 15. Donald Banks, Wigtownshire; 16. J. E. Stevenson, Rotherham; 17. P. R. Chalmers, Scotland; David H. Sawers, Scotland, and T. M. Stewart, Scotland—equal; 20. G. S. Clark, Edinburgh; 21. A. S. Gibb, Scotland; 22. J. Millar, Scotland; 23. A. S. Millard, England; 24. Henry Crombie, Perth.

PRACTICAL GEOLOGY AND MINERALOGY.

MEDAL AND HONOURS CERTIFICATE.—1. John M. Newton, Scotland.

HONOURS CERTIFICATES.—2. David P. Grubb, Dundee; 3. Donald Menzies, Dunkeld; 4. Andrew Young, Scotland; 5. Alice B. Lennie, Trinity; 6. Mowbray Ritchie, Edinburgh; 7. C. B. Crompton, London; 8. Jas. P. Hill, Scotland; 9. S. Gray, Edinburgh; 10. John Millar, Scotland; 11. J. Chalmers Leighton, Dundee; 12. Jas. T. Kerr, Newcastle-on-Tyne.

PRACTICAL GEOLOGY, &c. (HALF COURSE FOR ARTS).

HONOURS CERTIFICATES.—1. Robert Ingles, Scotland; 2. R. H. Moar, Stromness.

JAMES GEIKIE, D.C.L., LL.D., *Professor.*

PLANT PHYSIOLOGY.

1. James P. Hill, Fife (*Medallist*); 2. Sidney F. Ashby, B.Sc., Birkenhead; 3. Campbell Brown, M.A., Edinburgh; 4. Andrew A. Hall, Leith; 5. D. M. Callender, Leith; 6. William Mackenzie, Elgin; 7. Fred. T. C. Linton, Edinburgh.

J. H. BURRAGE, M.A., *Lecturer.*

SYSTEMATIC ENGINEERING.

1. Andrew C. Smith, M.A. (*Medal and First Prize*); 2. David Stevens (*Second Prize*); 3. H. H. Simpson (*Third Prize*).

HONOURS CERTIFICATES.—4. J. Ross Laing; 5. R. W. Macluckie; 6. John Irvine.

G. F. ARMSTRONG, M.Inst., C.E., *Professor.*

GEOMETRICAL AND MECHANICAL DRAWING.

1. David P. Grubb and Andrew C. Smith, M.A.—equal (*Medals*); 3. David Stevens (*Prize*).

HONOURS CERTIFICATES.—4. John Tait; 5. T. R. de F. Magalhaes; 6. Henry H. Simpson; 7. Reginald W. Macluckie; 8. Cyril R. Sprague; 9. William Gordon.

W. HUME KERR, M.A., B.Sc., *Lecturer.*

AGRICULTURE.

1. Eric A. Nobbs, Edinburgh (*Medallist*); 2. John O. Peet, Lancashire, and John W. Eastman, Preston — equal; 4. Alexander Grant, Banffshire; 5. John Leslie, Aberdeen; 6. John Trotter, Edinburgh; 7. W. J. Crann, Inverness, and Fraser Story, Innerleithen—equal; 9. Colin Story, Edinburgh, and James A. Keith, Ipswich — equal; 11. George Fraser, Edinburgh; 12. A. R. M'Dougal, Lauder; 13. George M. Fraser, Edinburgh; 14. George H. M'Farlane, Edinburgh.

ESSAY ON FARM EXCURSIONS.—Alexander Grant (*Medallist*).

STEVEN SCHOLARSHIP OF ABOUT £75 VALUE.—E. A. Nobbs.

HIGHLAND AND AGRICULTURAL SOCIETY PRIZES, IN BOOKS, VALUE £10.—1. J. O. Peet, £4; 2. Alexander Grant and J. W. Eastham, £3 each—equal.

ROBERT WALLACE, *Professor.*

AGRICULTURAL CHEMISTRY.

1. J. W. Eastham (*Medallist*); 2. Alex. Grant; 3. John Trotter; 4. E. A. Nobbs; 5. A. R. M'Dougal.

ADVANCED CLASS.

John Leslie.

A. P. AITKEN, D.Sc., *Lecturer.*

AGRICULTURAL ENTOMOLOGY.

1. E. A. Nobbs (*Medallist*); 2. J. W. Eastham; 3. John Trotter; 4. Fraser Story; 5. A. R. M'Dougal; 6. Colin Story; 7. George Fraser.

W. FREAM, LL.D., B.Sc., *Lecturer.*

FORESTRY.

HONOURS LIST.—1. Fraser Story, Innerleithen (*Medal and Prize*); 2. George M. Fraser, Edinburgh.

FRED. BAILEY, *Lecturer.*

Faculty of Divinity.

WINTER SESSION, 1897-98.

DIVINITY.

THIRD YEAR.

PRIZEMEN.—1. William W. Reid, M.A.; 2. Alexander W. Mitchell, M.A.; 3. Alexander M. Gordon, M.A.

HONOURABLE MENTION.—1. Alexander C. Buchanan, B.A., and D. Denholm Fraser, M.A.

SECOND YEAR.

PRIZEMEN.—1. John Chalmers, M.A., and James Mathers, B.A.—equal; 2. Frank H. Martin, B.A.; 3. C. Gordon Mackenzie, M.A.; 4. Gavin Millar, M.A.

EXCEPTIONAL PRIZE.—George D. Shepherd, M.A.

HONOURABLE MENTION.—George Macdougall, M.A., and R. B. Scott, B.A.—equal.

FIRST YEAR.

PRIZEMEN.—1. Richard Bell, M.A.; 2. Bruce M'Ewen, M.A.; 3. John Dickie, M.A.

HONOURABLE MENTION.—Andrew James Campbell, M.A.

R. FLINT, D.D., *Professor.*

BIBLICAL CRITICISM AND BIBLICAL ANTIQUITIES.

WRITTEN EXAMINATIONS.—1. W. W. Reid, M.A., Aberdeenshire (*Medallist*); 2. John Wallace, M.A., Ayrshire; 3. A. C. Buchanan, M.A., Ireland; 4. D. Denholm Fraser, M.A., Dingwall; 5. C. G. Mackenzie, M.A., Aberdeenshire; 6. John Dickie, M.A., Aberdeen, and Alexander M. Gordon, M.A., Canada—equal.

CERTIFICATES OF MERIT.—A. W. Mitchell, J. M'Dougall, Gavin Millar, Frank Martin.

ESSAYS.—1. John Dickie, M.A.; 2. A. C. Buchanan, M.A., and W. Marshall Low, Leith, M.A.—equal.

FOR SUPERIOR EXCELLENCY OF EXPOSITION.—C. Stuart Wallace, Manse of Traquair.

A. H. CHARTERIS, D.D., *Professor.*

ECCLESIASTICAL HISTORY.

PRIZEMEN.—1. William W. Reid, M.A., Inverness-shire (*Medallist*); 2. Richard Bell, M.A., Dumfriesshire; 3. A. C. Buchanan, B.A., County Down; 4. D. Denholm Fraser, M.A., Blair Athole; 5. John Wallace, M.A., Ayrshire; 6. Alexander M. Gordon, M.A., Halifax, Nova Scotia; 7. Alexander W. Mitchell, M.A., Fife.

M. C. TAYLOR, D.D., *Professor.*

HEBREW AND SEMITIC LANGUAGES.

SENIOR HEBREW.

PRIZEMEN. — 1. Richard Bell, M.A., Mouswald, Dumfriesshire (*Medallist*); 2. Rudolff Hugo, B.A., Cape Colony, and S. Sanderson, M.A., Edinburgh—equal; 4. G. N. Dods, M.A., Edinburgh, and A. R. Yeoman, M.A., Lincolnshire—equal.

FIRST-CLASS CERTIFICATES OF MERIT.—6. John Chalmers, M.A., Bathgate; 7. F. H. Martin, B.A., Dungannon, Ireland; 3. C. G. Mackenzie, M.A., Aboyne, and A. W. Mitchell, M.A., Dunfermline—equal.

SECOND-CLASS CERTIFICATES OF MERIT.—10. James Mathers, B.A., Ulster, and George M'Dougall, M.A., Lockerbie—equal; 12. C. S. M. Brown, M.A., Shetland.

JUNIOR HEBREW.

PRIZEMEN.—1. John Dickie, M.A., Kininmonth, Aberdeenshire (*Medallist*); 2. Lewis M'Glashan, M.A., Sheffield; 3. James Black, M.A., Elgin.

SECOND-CLASS CERTIFICATES OF MERIT.—4. A. J. Campbell, B.A., Ardallie, Aberdeenshire; 5. Bruce M. M'Ewen, M.A., Stonehaven, and J. K. Thomson, Scotland—equal; 7. Arthur Cotter, Edinburgh, and George Henderson, M.A., Inverness—equal.

JUNIOR ARABIC.

PRIZEMAN.—Richard Bell, M.A., Dumfriesshire.

SENIOR SYRIAC.

No Competitive Examination held.

ARCHIBALD R. S. KENNEDY, D.D., *Professor.*

Faculty of Law.

SUMMER SESSION, 1897.

CIVIL LAW.

PRIZEMEN. — 1. D. T. Stewart, M.A. Edin. (*Muirhead Prize*); 2. W. H. Fraser, M.A. Edin.; 3. James Kidd; 4. Norris Mackay, B.A. Cantab.

HONOURS.—5. S. Swaminadhan, B.A., Madras; 6. A. P. Thoms, M.A. St And.; 7. John Smart, M.A. Edin.; 8. R. F. Irving; 9. James Mitchell, M.A. St And.

JAMES MACKINTOSH, B.A., *Professor.*

SCOTS LAW.

1. William Burt, M.A., Fife; 2. Frank Rutherford, Selkirkshire; 3. James M'Laren, Forfarshire; 4. David Robertson, Wigtownshire (*Prizemen*); 5. William A. Jolly, Midlothian; 6. W. S.

Storie, Roxburghshire; 7. Malcolm N. MacInnes, M.A., Inverness-shire; 8. John A. Inglis, B.A. Oxon., Worcester; 9. J. Mackay Smith, Midlothian; 10. John Malcolm, Perthshire; 11. Robert Gray, M.A., Midlothian; 12. D. A. Miln, New South Wales; 13. J. Stiven Ogilvie, Midlothian; 14. Clement N. Scott, Forfarshire; 15. F. G. Watson, Dumfriesshire; 16. J. B. Ballingall, Forfarshire; 17. John Dickie, Dumfriesshire; 18. Richard Davidson, Roxburghshire; 19. David Davidson, Forfarshire; 20. James Davidson, Berwickshire.

ESSAY PRIZES.—1. William Burt, M.A.; 2 William P. Martin, Forfarshire.

JOHN RANKINE, M.A., LL.D., *Professor.*

MEDICAL JURISPRUDENCE.

1. O. G. Bell, M.A. (*Medallist*); 2. D. Robertson, M.A.; 3. James Mitchell; 4. Robert Berry; 5. James Macdonald; 6 and 7. Robert Hendry and Edward F. Gibson, M.A.—equal; 8. Alastair Dallas; 9. G. D. Veitch; 10. R. Sterling Craig; 11. G. Brown; 12. William Darling; 13. S. K. G. Kerr, M.A.; 14. J. H. Scott.

HENRY D. LITTLEJOHN, M.D., *Professor.*

INTERNATIONAL PRIVATE LAW.

1. D. A. Miln (*Class Prize*); 2. W. M. Henderson; 3. J. Scrimgeour; 4. J. B. Ballingall.

GEO. WARDLAW BURNET, M.A., B.L., *Lecturer.*

WINTER SESSION, 1897-98.

PUBLIC LAW.

PRIZEMEN.—1. W. T. Watson and D. Connel—equal; 3. E. F. Gibson.

HONOURS.—4. J. Pattison; 5. W. Keith Aikman; 6. W. H. Meikle and D. D. Paton—equal; 8. C. B. Milne; 9. A. A. Fraser.

ESSAY PRIZE.—W. T. Watson.

L. J. GRANT, Bart., B.A., *Professor.*

CIVIL LAW.

1. J. Hossell Henderson, B.A., Oxon.; 2. W. M. Henderson, M.A., Edinburgh, and W. T. Watson—equal (*Prizemen*); 4. J. S. Mackay; 5. W. S. Colville and J. R. Dickson, M.A., Edinburgh—equal; 7. W. M'Clymont, M.A., Edinburgh, and J. M. Vallance—equal; 9. W. A. Fleming; 10. W. F. Spiers, M.A. St And.; 11. A. A. Fraser; 12. W. Watson, B.A. Cantab.

JAMES MACKINTOSH, B.A., *Professor.*

CONSTITUTIONAL LAW AND HISTORY.

1. John Tait (*1st Prize*); 2. Walter J. Watson, M.A. (*prox. accessit, 2nd Prize*); 3. Alexander Cormack, Tom A. Menzies, James Mitchell, Thomas Paterson — equal (*Prizes*); 7. J. Campbell Irons; 8. John S. Mackay and William H. Meikle—equal.

HONOURABLE MENTION.—Edward F. Gibson, M.A.; John A. Inglis, B.A.

J. KIRKPATRICK, M.A., LL.D., *Professor.*

SCOTS LAW.

1. D. Robertson, Wigtownshire; 2. Edward J. Baxter, Forfarshire; 3. John Smart, jun., Edinburgh; 4. George Worrall, Forfarshire; 5. Thomas J. M'Lean Laing, Yorkshire; 6. James Cumming, Forfarshire; 7. James Walter Fraser (*Prizemen*); 8. W. S. M'Blain, Edinburgh; 9. Robert Linton, Selkirkshire; 10. D. M. Stirton, Forfarshire; 11. James Scrimgeour, Fifeshire; 12. John C. Wilson, Midlothian; 13. W. B. Kirkwood, Essex; 14. Norris Mackay; 15. Thomas M'Lean, Perthshire; 16. Innes West, Banffshire; 17. David Taylor, Perthshire; 18. William M. Cowie; 19. Edgar Brown; 20. Alfred P. Thoms, Forfarshire; 21. Laurence B. Bell, Stirlingshire.

AEGROTAT.—J. N. Davidson, Forfarshire (*Special Prize*).

JOHN RANKINE, Q.C., M.A., LL.D., *Professor.*

CONVEYANCING.

1. Peter Manson, Orkney; 2. William Harcus, Orkney; 3. Richard Davidson, Roxburgh; 4. William Burt, Fife, and James M'Laren, Forfar — equal; 6. John Dickie, Dumfries; 7. W. Stevenson Storie, Roxburgh; 8. Frank Rutherford, Roxburgh (*Prizemen*); 9. A. G. Archibald, Edinburgh; 10. T. S. Welsh, Edinburgh; 11. J. Mackay Smith, Edinburgh; 12. Roderick G. Brown, Edinburgh; 13. Clement M. Scott, Forfar; 14. D. Davidson, Forfar; 15. William Young, Ayr; 16. J. Malcolm, Perth; 17. J. Stiven Ogilvie, Edinburgh, and D. A. Miln, Australia—equal; 19. James Scott, Elgin; 20. D. W. Adam, Elgin; 21. Robert Shanks, Stirling; 22. James Boyack, Forfar; 23. W. B. Bennett, Clackmannan, and R. M. Anderson, Edinburgh — equal; 25. Peter Clark, Edinburgh; 26. Frederick G. Watson, Dumfries, and G. M. Wood, jun., Edinburgh—equal; 28. E. S. Morrison, Inverness; 29. Thomas Macfarlane, Clackmannan; 30. W. A. Jolly, Edinburgh; 31. Malcolm N. MacInnes, Argyll, and Thomas Hart, Edinburgh—equal; 33. A. G. Watson, Kirkcudbright; and John Henderson, jun., Dumfries—equal; 35. A. F. Hay, Roxburgh; 36. James Munro, Elgin; 37. W. B. M'Cormick, Fife; 38. W. Mackintosh, Edinburgh; 39. W. Watson Graham, Dumfries; 40. J. G. Reid, Ayr.

J. P. WOOD, W.S., *Professor.*

PROCEDURE AND EVIDENCE.

HONOURS LIST.

FIRST-CLASS HONOURS.—1. William Ogilvy, M.A., Canada (*Prize*); 2. David Fenton, Forteviot, and Malcolm M'Innes, M.A., Skye —equal.

J. J. COOK, LL.B., *Lecturer.*

Faculty of Medicine.

SUMMER SESSION, 1897.

ELEMENTARY BOTANY.

FIRST-CLASS HONOURS.—1. S. A. Ellerbek, Denmark; 2. Campbell Brown, Edinburgh, and Ben. P. Watson, Fifeshire—equal; 4. R. T. Baillie, Brechin, and Sidney Gilford, Surrey — equal (*Medallists*); 6. William Black, Dunfermline, and F. I. Dawson, India—equal; 8. W. M'Dougall, Rothes, and D. A. Ogilvie, Cupar-Fife—equal.

SECOND-CLASS HONOURS.—10. A. Fraser, Morayshire, and Neil F. M'Hardy, Linlithgowshire—equal; 12. A. H. Firth, Edinburgh, and A. C. Keay, Dunkeld—equal; 14. C. W. Saleeby, Sussex; 15. T. B. Shaw, Ireland; 16. G. R. Mill, Arbroath; 17. A. G. Waugh, Stirlingshire, and T. S. Beauchamp-Williams, Bangor—equal; 19. E. M. Horsburgh, Kelso, and A. H. Reid, Trinidad—equal; 21. James Kirkwood, Edinburgh; W. H. Swaffield, London, and John Weir, Ireland—equal; 24. A. R. Johnston, Forfar, and William Mackenzie, Elgin—equal; 26. C. H. Bösenberg, South Africa; Henry Buist, Dundee, and W. H. Dickenson, Jarrow—equal; 29. James L. Duncan, Leith; C. J. Shaw, Blairgowrie, and W. H. Prentice, Edinburgh—equal; 32. A. A. Hall, Leith, and H. C. Martin, Dungannon—equal; 34. R. P. M'Neil, Stranraer; 35. A. P. M'Gregor, Scotland; 36. T. F. Cavanagh, Kildare, and R. Ashleigh Glegg, Edinburgh—equal; 38. Samuel Lyle, Co. Antrim; J. M. Marshall, Kirkcudbright, and George B. A. Spiers, Cleator—equal; 41. R. A. Belilios, Calcutta, and John Mackenzie, Edinburgh — equal; 43. H. Beveridge, Edinburgh; Charles A. Choyce, New Zealand; Paul Mathews, Carlisle, and J. Glassel Millar, Dumfries—equal; 47. William M'Vey, Edinburgh, and Alexander M. Sharp, Armadale —equal; 49. D. M. Callender, Leith; John Dalgleish, British Guiana; and R. A. Savage, West Africa—equal; 52. Alexander K. Baxter, Leith; T. W. E. Ross, London; A. R. Wallis, Kilburn; F. E. Wilson, Leith; and C. A. Wood, Yorkshire—equal; 57. Edward P. Calder, Berwickshire; G. A. Jolly, Edinburgh; and D. Mackinnon, Edinburgh—equal; 60. R. C. Irvine, Tasmania; P. V. Langmore, New South Wales; P. F. M'Far-

lane, Dumfriesshire; James Reid, Edinburgh; and James Woods, Belfast—equal; 65. O. J. Evans, Wales; Samuel Gray, Scotland; A. G. Martin, Edinburgh; J. K. Matheson, Dingwall; G. C. Strathairn, Edinburgh; P. S. Tillard, Hastings; and E. A. Walker, Forfarshire—equal.

ELEMENTARY PRACTICAL BOTANY.

Class A.

First-Class Honours.—1. T. S. Beauchamp-Williams, Bangor; 2, F. I. Dawson, India (*Medallists*); 3. A. M. Malcolmson, Leith, and Samuel Lyle, Co. Antrim—equal; 5. J. Dalgleish, British Guiana; P. V. Langmore, New South Wales; and J. Brocket, Lanarkshire—equal.

Second-Class Honours.—8. J. L. Duncan, Leith, and T. B. Shaw, Ireland—equal; 10. James Watson, Edinburgh; 11. R. Ashleigh Glegg, Edinburgh; E. P. Calder, Berwickshire; and R. M. Grant, Inverness—equal; 14. J. G. Millar, Dumfries; 15. C. A. Choyce, New Zealand; 16. G. R. Mill, Arbroath, and D. N. W. Murray, New Zealand—equal; 18. James Reid, Edinburgh.

Class B.

First-Class Honours.—1. Sidney Gilford, Surrey; 2. B. P. Watson, Anstruther (*Medallists*); 3. C. H. Bösenberg, Cape Colony, and Campbell Brown, Edinburgh—equal; 5. A. R. Wallis, Kilburn, and G. Stewart Murray, Bo'ness—equal.

Second-Class Honours.—7. D. Sutherland, Strathspey, and T. L. Thomson, London—equal; 9. A. H. Firth, Edinburgh, and A. R. Johnstone, Forfar—equal; 11. R. A. Belilios, Calcutta; 12. D. A. Ogilvie, Cupar-Fife, and J. Kirkwood, Edinburgh—equal; 14. C. J. Shaw, Blairgowrie; 15. A. A. Hall, Leith; G. B. A. Spiers, Cleator; and W. Macdougall, Rothes—equal.

FOR DRAWINGS ILLUSTRATING WORK DONE DURING THE SESSION.

First-Class Honours.—1. Campbell Brown, Edinburgh; 2. Sidney Gilford, Surrey; 3 C. H. Bösenberg, South Africa; 4. P. S. Tillard, Hastings (*Prizes*).

Second-Class Honours.—5. John M'Kenzie, Edinburgh, and G. A. Jolly, Edinburgh—equal; 7. D. Gordon Carmichael, Calcutta, and William M'Vey, Edinburgh—equal; 9. Wm. M'Dougall, Rothes, and D. N. W. Murray, New Zealand—equal.

FOR MICROSCOPIC PREPARATIONS MADE DURING THE SESSION.

First-Class Honours.—1. David Sutherland, Strathspey, and Sidney Gilford, Surrey—equal; 3. William M'Dougall, Rothes (*Prizes*).

Second-Class Honours.—4. Andrew P. M'Gregor, Scotland.

ISAAC BAYLEY BALFOUR, M.D., D.Sc., *Professor*.

ELEMENTARY ZOOLOGY.

FIRST-CLASS HONOURS.—1. A. C. Keay; 2. Geo. S. Murray (*Medallists*); 3. Sidney Gilford.

SECOND-CLASS HONOURS.—4. J. H. Meikle and John M'Kenzie—equal; 6. James Kirkwood, A. P. M'Gregor, and R. A. Belilios—equal; 9. R. A. J. Harper; 10. D. Sutherland; 11. Campbell Brown, J. F. Cavanagh, D. N. W. Murray, Neil F. M'Hardy, and W. H. Swaffield—equal; 16. Samuel Lyle, J. W. E. Ross, C. W. Saleeby, and Alex. M'G. Sharp, M.A.—equal; 20. D. M. Callender and James S. Millar—equal; 22. J. M. Marshall.

PRACTICAL ZOOLOGY.

FIRST-CLASS HONOURS.—1. J. L. Duncan and Sidney Gilford—equal (*Medallists*); 3. E. P. Calder and G. S. Murray—equal.

SECOND-CLASS HONOURS.—5. Campbell Brown, M.A., and J. H. Meikle, M.A., B.Sc.—equal; 7. A. Grant, A. C. Keay, and John M'Kenzie—equal.

J. C. EWART, M.D., *Professor.*

PRACTICAL CHEMISTRY.

FIRST-CLASS HONOURS.—1. David G. Mitchell, Edinburgh (*Medallist*); 2. E. Macmillan, Edinburgh.

SECOND-CLASS HONOURS.—3. M. N. Bose, Calcutta; 4. R. M. Grant, Inverness; 5. A. R. Khan, Rangoon; 6. R. M. Shearer, Edinburgh; 7. E. H. Price, S. Wales; 8. M. H. Graham.

ALEX. CRUM BROWN, M.D., *Professor.*

PHYSICS.

FIRST-CLASS HONOURS.—1. D. P. Grubb; 2. B. P. Watson; 3. A. R. Wallis (*Medallists*); 4. A. G. Cairns and P. Matthews—equal; 6. A. G. Waugh; 7. J. Weir; 8. W. Black and H. J. Dunbar—equal; 10. R. T. Baillie; 11. F. E. Wilson; 12. H. Beveridge and C. H. Bösenberg—equal; 14. J. R. Bosman, F. J. Dawson, T. B. Shaw, and T. A. Smyth—equal.

SECOND-CLASS HONOURS.—18. May Agnew; 19. W. H. Dickinson and J. B. Mason—equal; 21. A. K. Baxter, A. Ellerbeck, and D. Mackinnon—equal; 24. Margaret M. Smith; 25. E. Jones, T. H. Mackinnon, and C. J. Shaw—equal; 28. W. Hamilton, W. S. Laidlaw, J. Politachi, and A. Rose—equal.

P. G. TAIT, M.A., *Professor.*

SENIOR PRACTICAL ANATOMY.

FIRST-CLASS HONOURS.—1. Sutherland Simpson, B.Sc., Orkney (*Medallist*); 2. H. J. M'Lean, New Zealand; 3. J. Wishart Kerr, Scotland; A. A. Martin, New Zealand; and William

Purves, Caithness—equal; 6. J. B. Cassels, India, and Alex. Robertson, Stornoway—equal; 8. L. J. L. de Pavillet, London, and H. Oswald Smith, Edinburgh—equal; 10. D. J. Fergusson, Richmond-on-Thames, and G. B. Robinson, Manchester—equal; 12. W. J. M. M'Farlane, Dumfriesshire; 13. H. E. Coghlan, Staffordshire; Jai Naraina, Delhi, and Bernard Stracey, Edinburgh —equal; 16. Thomas Graham, Cumberland; 17. G. G. Cumming, Calcutta, and B. B. Head, Kent—equal; 19. A. R. Buchanan, Yorkshire,

SECOND-CLASS HONOURS—20. J. M. Benson.

PRACTICAL ANATOMY.

(SECOND YEAR).

FIRST-CLASS HONOURS.—1. G. S. Carmichael, Edinburgh; W. E. Frost, Limerick; W. G. Porter, India; and William Wallace, Berwick-on-Tweed—equal (*Medallists*); 5. T. H. W. Alexander, Perth, and Andrew Hunter, Edinburgh—equal; 7. Robert Affleck, Galloway; G. H. Hannah, Jamaica; J. G. S. Jamieson, M.A., Ayr; Wm. Macdougall, Rothes; J. G. M'Dougall, Montrose; J. M. A. Macmillan, Edinburgh; and Garnett Wright, Whitehaven —equal; 14. S. A. Ballantyne, Lanarkshire; W. E. C. Dickson, Edinburgh; and Wm. Girdwood—equal; 17. H. E. Arbuckle, Natal; R. V. Clark, Edinburgh; Alex. Frew, Ayrshire; Andrew Fleming, Edinburgh; James Munro, Dornoch; W. S. Scott, Selkirk; and S. R. Sibbald, Lockerbie—equal; 24. Charles Fraser, Inverness, and E. B. Jamieson, Shetland—equal; 26. J. F. Selkirk, Aberdeen; 27. John P. Douglas, Scotland; William Eadie, Harrington, and C. F. Noble, Inverness—equal; 30. W. I. Dunn, Roxburgh; D. S. M'Knight, Whitburn; W. H. Prentice, Edinburgh; and Alec. Trotter, Perth—equal: 34. Philip Weatherbe, Nova Scotia.

JUNIOR PRACTICAL ANATOMY.

FIRST-CLASS HONOURS.—1. Charles Platt, Ph.D., Montclair, U.S.A. (*Medallist*); 2. William Miller, Edinburgh, and Peter Murray, Morayshire—equal; 4. G. C. J. Robertson, Aberdeen; 5. James Halliday, Dumfries, and H. L. Spark, Forfar—equal; 7. J. F. Allan, Strathspey; 8. John Ross, Whitburn.

SECOND-CLASS HONOURS.—9. John Wallace, Lanark.

D. HEPBURN, M.D., *Lecturer*.
WM. TURNER, Kt., M.B., *Professor*.

PRACTICAL PHYSIOLOGY.

FIRST-CLASS HONOURS.—1. J. G. S. Jamieson, M.A., Ayr; 2. O. Charnock, Bradley, Lancashire, and M. A. Swan, Paisley—equal (*Medallists*); 4. A. Trotter, Perth; 5. A. Hunter, M.A.,

Edinburgh ; 6. N. S. Wells, Burmah ; 7. G. Scott Carmichael, Edinburgh ; 8. P. Murray, Morayshire ; and A. M. Wood, Leith —equal ; 10. D. Heron, Co. Down ; E. B. Jamieson, Shetland, and J. G. M'Dougall, Montrose—equal ; 13. N. Patterson, Ancrum, and C. Platt, Ph D., New Jersey, U.S.A.—equal ; 15. A. B. Black, Madras ; W. A. Duncan, Edinburgh ; W. E. Frost, Limerick ; H. L. Spark, Forfar, and G. Wright, Whitehaven—equal ; 20. H. J. Hoile, M.A., Dundee ; W. Mair, M.A., Minnesota, and J. B. Primmer, Dunfermline—equal ; 23. W. E. Carnegie Dickson, Edinburgh, and A. L. Gurney, Jersey—equal ; 25. J. H. Bell, Edinburgh ; J. Halliday, Dumfries ; S. G. Peill, Madagascar ; G. C. Irvine-Robertson, Clackmannan, and J. K. A. Robertson, Greenock—equal ; 30. D. J. Fergusson, Richmond ; 31. W. S. Patton, Hyderabad ; 32. R. Affleck, Balmaghie, and J. G. Mackenna, Dumfries—equal ; 34. C. M. Anderson, Belfast, and J. Munro, Dornoch—equal.

Second-Class Honours.—36. G. C. Burgess, Aberdeen, and J. Duncan, Kinross—equal ; 38. C. C. Choyce, New Zealand ; W. Eadie, Cumberland ; and A. Frew, Ayrshire—equal ; 41. W. P. Cormack, Tain, and F. Hardie, Kirkcaldy—equal ; 43. J. B. Milne, Montrose ; J. H. M'Kee, Belfast ; and S. R. Sibbald, Lockerbie—equal ; 46. J. F. Allan, Strathspey ; P. S. Haldane, Bridge of Allan ; R. Imrie, Castle Douglas ; L. C. Peel-Ritchie, Edinburgh ; and A. D. Spence, Montrose—equal ; 51. D. S. Macknight, Whitburn ; J. C. Parker, Alloa ; and J. Ross, M.A., Edinburgh—equal ; 54. J. S. Enslin, South Africa ; N. E. Harding, Liverpool ; A. M. Malcolmson, Leith ; and J. H. Meikle, M.A., B.Sc., Inverary —equal ; 58. W. G. Porter, India, and G. L. Thomson, Mauritius—equal ; 60. J. F. Selkirk, Aberdeen ; 61. A. H. Firth, Edinburgh, and W. C. Ross, Ayrshire—equal ; 63. R. A. Cameron, New Zealand ; J. R. Edward, Musselburgh ; and J. H. Thornley, Workington—equal ; 66. G. F. Buist, St Andrews ; D. J. Roberts, Carnarvonshire ; and J. A. Smail, Edinburgh—equal ; 69. E. Seymour-Brett, Bridlington ; A. C. N. M'Hattie, West Indies ; and W. S. Scott, Selkirk—equal ; 72. F. K. Kerr, Leith ; H. M. Roberts, Rhyl ; and C. W. Somerville, Dalkeith—equal ; 75. W. I. Dunn, Roxburghshire, and A. F. Mackay, Cantyre—equal ; 77. A. Emslie, Edinburgh ; M. W. Robertson, Edinburgh ; and G. A. P. Ross, Dingwall—equal ; 80. H. E. Arbuckle, Natal, and J. S. Geikie, Perth—equal ; 82. R. C. Monnington, Cumberland ; C. E. Pepper, Weymouth ; and G. D. Whyte, London—equal ; 85. C. H. Allen, Lincolnshire ; J. Lindsay, Edinburgh ; and F. M. Wigg, S. Australia—equal ; 88. A. Brown, Edinburgh ; A. L. Roxburgh, Ayrshire ; J. A. Smith, Belfast ; A. G. Watson, Southport ; and J. C. Zuidmeer, Cape Colony—equal.

WM. RUTHERFORD, M.D., *Professor.*

PRACTICAL MATERIA MEDICA.

FIRST-CLASS HONOURS.—1. George Scott Carmichael, Edinburgh; 2. Robert Affleck, Galloway (*Medallists*); 3. Launcelot Bruce, Brechin; 4. Henry J. M'Lean, New Zealand; 5. William Wallace, Berwick-on-Tweed.

SECOND-CLASS HONOURS.—6. William Girdwood, Cape Colony; 7. Angus M'Nab, New Zealand; 8. Frederick C. Matthew, Corstorphine; 9. Simon A. Ballantyne, Scotland, and James Munro, Dornoch—equal; 11. Thomas H. W. Alexander, Scotland; 12. A. Branfoot Black, Madras, and J. Gordon M'Dougall, Montrose—equal; 14. Andrew Fleming, Edinburgh; David Heron, Ireland; and Norman S. Wells, Burma—equal; 17. Garnell Wright, Whitehaven; 18. John P. Douglas, Lockerbie; Andrew L. Roxburgh, Ayrshire; and Frank Young, Kirkcaldy—equal; 21. Alexander Frew, Ayrshire; Alexander C. M. M'Hattie, West Indies; James C. Parker, Alloa; and A. Murray Wood, Leith—equal; 25. Samuel Ramsay Sibbald, Lockerbie; 26. J. George M'Kenna, Dumfries, and John B. Primmer, Dunfermline—equal; 28. R. Sidney Ellis, Calcutta; John M. A. Macmillan, Scotland; Norman Patterson, Scotland; Frederick D. Simpson, Bathgate; and H. Oswald Smith, Edinburgh—equal; 33. Frederick Hardie, Edinburgh: 34. Robert Hamilton, Bradford; 35. O. Charnock Bradley, England; Dundas S. MacKnight, Whitburn; Samuel Rattray, Edinburgh; and Hubert D. Shepherd, England—equal; 39. Charles M. Anderson, Ireland; William P. Cormack, Tain; J. Keith A. Robertson, Greenock; and James F. Selkirk, Aberdeen—equal; 43. R. Gerald Leach, Rochdale; 44. H. E. Arbuckle, Natal; Arthur A. Martin, New Zealand; Harry Mason, Yorkshire; and Archibald D. Nimmo, Edinburgh—equal.

THOMAS R. FRASER, M.D., *Professor.*

PRACTICAL PATHOLOGY.

SENIOR DIVISION.

FIRST-CLASS HONOURS.—J. M. Reid, Edinburgh (*Medallist*).

JUNIOR DIVISION.

FIRST-CLASS HONOURS.—1. Henry G. Carlisle, Liverpool; William Ewart, New Zealand, and David Ferrier, Dundee—equal (*Medallists*); 4. T. E. Richards, Wales; 5. Y. A. Djedjizian, Asia Minor; J. G. Jack, Edinburgh; and E. M'Killop Young, Kinross—equal; 8. George Mackie, Montrose, and A. S. M. Peebles, Scotland—equal; 10. Arthur Preston, Yorkshire, and Victor E. Sorapure, Jamaica—equal; 12. James Miller, Edinburgh; 13. John D. Comrie, Perthshire, and J. J. Galbraith, Inverness—equal; 15. G. D. Laing, Northumberland, and James

Luckhoff, Cape Colony—equal; 17. W. J. Barclay, New Zealand; David Ewart, New Zealand; R. F. Jardin, British Guiana; James Masson, M.A., B.Sc., Edinburgh; William Park, Orkney; and Sutherland Simpson, Orkney—equal.

SECOND-CLASS HONOURS.—23. J. Fullarton, Glasgow, and George Thomson, Edinburgh—equal; 25. John H. Gordon, Midlothian; 26. W. M. Mackay, Durham; R. M. Rowe, Edinburgh, and Robert G. Thomson, Fifeshire—equal; 29. Robert Ritchie, Edinburgh, and W. J. Stuart, Edinburgh—equal; 31. G. A. Brogden, England; George H. J. Brown, India; D. A. Callender, Edinburgh; F. H. Stirling, France; and C. H. J. Watson, South Africa—equal; 36. B. J. Courtney, Altrincham; 37. F. J. Hathaway, India; Charles E. Smith, New Zealand; and B. Stracey, Edinburgh—equal; 40. D. B. Gornall, Preston; 41. John Anderson, Dollar, and L. M. Wedderburn, Forfar—equal; 43. H. A. D. Moore, Singapore; 44. W. J. D. Bromley, Lancaster; Thomas Livingstone, Stanhope, and Robert B. Turnbull, Ross-shire—equal; 47. Frank F. Kerr, and J. Léon Louis, Mauritius—equal; 49. David B. King, M.A., Fifeshire; John M. Macdonald, Oban; and J. G. Mitchell, Sutherlandshire—equal; 52. A. Evelyn Goldie, Jamaica; Irvine K. Hermon, Montrose, and T. P. Oates, Cape Colony—equal; 55. John C. Carr; 56. Harvey Baird, Perth; D. R. Evans Merioneth; O. A. Gee; and R. D. Hudson, India—equal; 60. David Fenton, Forfar, and James Orr, Edinburgh—equal; 62. William Macniven, Fort-William, and W. O. Williams, Wales—equal; 64. T. C. Mackenzie, China; 65. Morden Carthew, South America; D. J. Fergusson, Richmond-on-Thames; and G. G. Hay, Abernethy—equal; 68. Yoshinobu Fukuda, Japan; James Husband, Edinburgh; Herbert C. Keun, Singapore; George H. Menzies, Inverkeithing, and William Reid, Montrose—equal; 73. W. J. Collinson, Guernsey; C. H. Durrant, West Indies; John Jeffrey, Jedburgh, and A. C. Neethling—equal; 77. P. J. Bodington, Norfolk, and W. T. James, Wales—equal.

W. S. GREENFIELD, M.D., *Professor.*

OPERATIVE MIDWIFERY AND GYNECOLOGY.

FIRST-CLASS HONOURS.—1. W. Hope Fowler, Scotland (*Medallist*); 2. Charles Forsyth, Scotland; 3. James Grieve, Lasswade.

A. R. SIMPSON, M.D., *Professor.*

MEDICAL JURISPRUDENCE.

FIRST-CLASS HONOURS.—1. Alexander J. W. Buchanan; 2. Sutherland Simpson; 3. Maxwell Mackelvie and William Bennett—equal (*Medallists*); 5. George J. R. Carruthers and John G. Jack—equal; 7. George Lyon, H. C. Kenn, and James Masson, M.A., B.Sc.—equal; 10. J. J. Galbraith, John H. Gordon, Irvine K.

Hermon, J. G. Mitchell, William Patterson, R. M. Rowe, and Robert G. Thomson—equal.

SECOND-CLASS HONOURS.—17. George Mackie, James Miller, William A. Murray, and James Martin Reid—equal; 21. W. J. Barclay, Charles Chilton, and Thomas S. A. Orr—equal; 24. Y. A. Djedjizian, Sydney H. Morris, and L. Maclagan Wedderburn—equal; 27. George H. J. Brown, W. H. Dawson, M.A., B.Sc.; David Ewart, William Park, and Charles Heron Watson—equal; 32. John D. Comrie, Arthur E. Goldie, A. S. M. Peebles, Arthur Preston, Angus Whyte, and E. M'Killop Young—equal; 38. James Husband, R. F. Jardin, and Thomas Livingstone—equal; 41. W. J. D. Bromley, George G. Hay, Frederick R. Jones, David B. King, M.A.; William J. Stuart, and Yoshinobu Fukuda—equal; 47. David J. C. Oliver; 48. Harvey Baird, Frank J. Hathaway, J. F. Martin, and James W. Matthewson—equal; 52. Leonard D. H. Baugh, George H. Menzies, Robert Ritchie, and Nisar Ahmed—equal; 56. Henry G. Carlisle, W. Ewart, Arthur Maison Holmes, Charles Edward Smith, and A. Hamilton Wood—equal; 61. John Fullarton, A. C. Heath, John Jeffrey, R. N. Pringle, and Stephen Southall—equal; 66. David Fenton, Percy W. Hampton, and James Luckhoff—equal; 69. D. A. Callender, J. G. Forsyth, J. W. Kerr, G. Ross Laing, J. Spencer Low, W. J. M. M'Farlan, H. M. Mackenzie, George C. M'Leavy, Leonard de Pavillet, Ernest J. Peill, S. C. Pritchard, G. H. W. Robertson, and A. K. Smith-Shand—equal; 82. Robert B. Turnbull; 83. P. J. Boddington, A. P. L. Brown, W. R. Eyton-Williams, B. K. Goldsmith, T. Graham, Ernest W. Martin, T. P. Oates, William Reid, M.A., and A. S. Whytock—equal; 92. John Anderson, B. J. Courtney, James M. Fraser, George D. Laing, William W. Maxwell, E. G. D. Menzies, and James Scobie—equal; 99. Sydney L. Dawkins and T. C. Mackenzie—equal; 101. David Ferrier, Louis S. Lessing, J. Ramsay Munro, Peterswald Pattison, and W. G. Thompson—equal; 106. R. R. Fasson and H. A. D. Moore—equal; 108. T. E. Richards and Harold E. Wareham—equal; 110. J. A. Black, Somerson Clark, G. Gordon Cumming, and G. C. Ghose—equal.

ESSAY ON ABATTOIRS.—1. G. H. W. Robertson, M.A. (*Prize*); 2. Arthur Preston (*Prize*); 3. James M. Fraser, R. G. Morrison, Robert Ritchie, and E. A. Brown—equal; 7. J. M. Macdonald; 8. J. G. Mitchell and G. G. Hay—equal; 10. D. R. Evans and S. H. Morris—equal; 12. L. de Pavillet; 13. G. D. Laing.

BEST ACCOUNT OF DISSECTIONS PERFORMED IN THE CLASS.—1. G. H. W. Robertson, M.A. (*Prize*); 2. A. J. W. Buchanan (*Prize*); 3. F. Norton Menzies; 4. H. J. Holland and Sidney H. Morris—equal; 6. R. G. Thomson, R. Ritchie, B. J. Courtney, James Miller, and Irvine K. Hermon—equal; 11. George Mackie, Angus Whyte, D. R. Evans, George G. Hay, and T. Ramsay

Munro—equal; 16. W. G. Williams, L. de Pavillet, Thomas Livingstone, and A. S. M. Peebles—equal.

HENRY D. LITTLEJOHN, M.D., *Professor.*

MENTAL DISEASES.

FIRST-CLASS CERTIFICATES.—1. A. C. M'Gilchrist, M.A., and R. F. M'Nair-Scott, B.A. — equal; 3. A. Dingwall Fordyce; 4. Margaret Brodie, Andrew Gilmour, and Robert MacKenna, M.A.—equal (*Medallists*); 7. R. N. Brebner and George Lyon—equal; 9. William Stanforth Eaton and Alfred C. Sandstein—equal; 11. D. Forbes and D. B. Waters, M.A.—equal; 13. Ernest J. Bashford, Phil. E. Millard, Cecil C. Murison, and W. M. Paul—equal; 17. William James Jones, George E. J. King, and Christina A. Mayne—equal; 20. James R. Anderson, Edward M'Culloch, and Montague Rust—equal; 23. John W. Mackenzie; 24. J. M. Cuthbert.

SECOND-CLASS CERTIFICATES.—25. J. Alice Craig and Robert Gibson—equal; 27. G. de Labat; 28. George A. Rorie; 29. R. C. Cunningham and David Wardrop—equal; 31. C. Forsyth and William F. Godfrey—equal; 33. James A. Raeburn; 34. Albert Alexander Gunn.

T. S. CLOUSTON, M.D., *Lecturer.*

DISEASES OF THE EYE.

FIRST-CLASS CERTIFICATES.—1. A. C. M'Gilchrist and R. F. M'Nair-Scott—equal (*Medallists*); 3. Robert King; 4. D. B. Waters; 5. D. Forbes (*Prizemen*); 6. C. Horsford and A. C. Sandstein—equal; 8. W. J. Barclay; 9. George Dick; 10. Ernest W. Lewis; 11. A. Dingwall Fordyce; 12. A. Shearer, S. Simpson, and R. Cunningham—equal; 15. Wm. S. Eaton, E. M'Culloch, and J. A. Raeburn—equal; 18. L. D. Parsons and David Ferrier—equal; 20. D. V. M'Intyre and A. Bisset Shed—equal; 22. H. H. Broome, C. Forsyth, G. Hamilton, G. de Labat, J. D. Lithgow, Andrew M'Kaig, A. E. B. Wood, and George D. Laing—equal.

SECOND-CLASS CERTIFICATES.—30. W. G. Clark, Fred H. Dommisse, R. Gibson, R. W. M'Kenna, and H. Harris—equal; 35. W. P. Meldrum; 36. C. S. Brebner, P. L. M'All, George A. Rorie, J. A. Creasy Smith, and Andrew Gilmour—equal; 41. W. Lockerbie; 42. James Leggate, W. Raine, J. H. Rhodes, Arthur H. Thomas, and E. R. Branch—equal; 47. A. A. Gunn and T. R. Matthews—equal; 49. Ernest G. Ford; 50. E. M. Lithgow; 51. James Miller, D. D. Farquharson, and F. M. Parry—equal; 54. Wm. Tarr, R. C. Verley, and A. Fordyce—equal; 57. Alex. M. M'Intosh, Frank P. Bester, A. E. Brooks, and Robert Pugh—equal.

GEORGE A. BERRY, M.B., *Lecturer.*

WINTER SESSION, 1897-98.

CHEMISTRY.

ROBERT WILSON MEMORIAL PRIZE.—S. A. Ellerbek, Denmark.

FIRST-CLASS HONOURS.—1. S. A. Ellerbek, Denmark; 2. Ben. P. Watson, Largo; 3. William Lilico, Edinburgh; 4. George Butler, Darlaston, and J. Dunlop, Lanark—equal; 6. Charles Anderson, Orkney (*Medallists*); 7. Robert Buchanan, Edinburgh; 8. C. H. Bösenberg, Cape Colony, and R. M. Shearer, Edinburgh—equal; 10. William Gentle, Edinburgh; 11. T. B. Hamilton, Melrose; 12. Alexander K. Baxter, Leith; D. W. Durie, Collessie; David G. Mitchell, Edinburgh; and H. Speirs—equal; 16. Frank Inglis Dawson, India; 17. Berrington P. Ghose, Trinidad; 18. W. H. Swaffield, and Henry Wilkie, Lochgelly—equal; 20. William Black, Dumfermline; Adam Clark, Sidney Gilford, Surrey; Dirk J. Hamman, and R. E. Russell—equal; 25. W. Anderson, J. L. S. Clark, James Kirkwood, Edinburgh, and Robert C. Low —equal.

SECOND-CLASS HONOURS.—29. J. Dommisse, Cape Colony; C. H. Houghton, Co. Dublin; J. W. S. Macfie, and Daniel Mackinnon —equal; 33. D. R. Armit, Arbroath; E. A. Braine, and Cyril R. Sprague, Edinburgh—equal; 36. C. R. Gonin; 37. C. J. Shaw, Perthshire; 38. Alexander Waddell, Edinburgh; 39. J. B. Mason, Edinburgh; 40. Thomas H. Osler; 41. John M. Darling, Edinburgh; Walter A. Forsyth, Galashiels; E. Inglis Hall, Lancaster, and A. A. Jardine, Cape Colony—equal; 45. L. Anderson, Jamaica; Ernest E. Cassaday; R. C. Irvine, Tasmania; Hermann Kramer, Cape Colony; and Saiduzzafar Khan—equal; 50. C. M. Campbell and E. M. Reece—equal; 52. Henry H. Robarts, London; 53. Wilfred E. Knight, Dublin; 54. J. L. Allison, James C. London, and D. N. W. Murray, New Zealand—equal; 57. John Falconer, and T. H. Mackinnon, Edinburgh—equal; 59. Theodore Martin Cuthbert, and John Weir—equal; 61. J. C. Cameron, J. Fairbairn, British Guiana; John S. J. Geikie, Perth; Thomas S. M. Lumsden, and A. W. K. Straton—equal; 66. G. B. Brand, Edinburgh; Howard Harding, and F. E. Ross—equal; 69. A. Carruthers, Kilwinning; Alexander Fraser M. Clark, Kirkcaldy; C. E. Clay, Wallace A. Cowan, Alexander Rose, Edinburgh; and E. W. Smyth, New Zealand—equal; 75. A. M. Moll; 76. T. C. Adam, J. R. Bosman, Stellenbosch; G. G. Buchanan, D. M'K. Crooks, Jamaica; R. G. Gordon, Scotland; Malcolm C. R. Grahame, Clemens E. F. von Mengershausen, James S. Sewell, Hexham; and W. F. Smeall—equal.

PRACTICAL CHEMISTRY.

FIRST-CLASS HONOURS.—1. Alexander Kidd Baxter, Leith; 2. S. A. Ellerbek, Denmark; 3. Robert Buchanan; 4. J. Dunlop, Lanark;

5. Robert C. Low (*Medallists*); 6. Walter H. Swaffield, and Ben. P. Watson, Fife—equal; 8. Henry Wilkie, Fife; 9. Frank I. Dawson, India, and W. F. Smeall—equal; 11. C. H. Bösenberg, Cape Town; Henry Herd, Leith; and James Kirkwood—equal; 14. Maung Ba, Burma, and J. Dommisse—equal; 16. Berrington P. Ghose, William Lilico, and Henry Speirs, Gavington—equal; 19. Sidney Gilford, Surrey, and D. N. W. Murray, New Zealand —equal; 21. Henry Beveridge, J. W. S. Macfie, A. B. dos Remedios, Goa; and R. E. Russell—equal; 25. D. R. Armit, Arbroath, and Alexander Fraser M. Clark, Kirkcaldy—equal; 27. William Bennett, Clonakilty; 28. Thomas C. Adam, Dunblane; Adam Clark, J. Fairbairn, T. B. Hamilton, Melrose; and James C. London—equal; 33. L. Anderson, John K. Matheson, and Charles Reece—equal; 36. John M. Darling, Edinburgh; C. H. Houghton, and Daniel Mackinnon—equal; 39. George Butler, Darlaston; A. A. Jardine, Cape Colony; and E. M. Reece—equal; 42. W. Anderson, C. R. Gonin, R. C. Irvine, Henry H. Robarts, London; C. J. Shaw, and Saiduzzafar Khan—equal.

Second-Class Honours.—48. C. M. Campbell; 49. William Black, E. Inglis Hall, and Thomas H. Osler—equal; 52. Malcolm C. R. Grahame; 53. John Falconer, Dirk J. Hamman, and Wilfred E. Knight, Dublin—equal; 56. Wallace A. Cowan, Edinburgh; Percy John Hay, W. F. Macdonald, and C. R. Sprague—equal; 60. Howard Harding and Harold Kerr—equal; 62. T. S. M. Lumsden and Robert P. M'Neil, Stranraer—equal; 64. James Bentley, Limerick; E. A. Braine, Andrew B. Ross, Ross-shire; and John Weir—equal; 68. T. M. Cuthbert, Abraham Leach, T. W. E. Ross, and Henry M. Stumbles, Southend-on-Sea—equal; 72. Walter A. Forsyth, Galashiels; J. J. M'Millan, Moffat, and J. S. Sewell, Hexham—equal; 75. A. M. Caverhill and John A. Small—equal; 77. L. H. I. Bell, Edward Bennet, and Hans F. Eggeling, Edinburgh—equal; 80. R. G. Gordon and Edward J. Morton, Edinburgh—equal; 82. Percy Elkarey, Palestine; George Henderson, H. Kramer, South Africa; and J. J. Redhead, Venezuela—equal; 86. Alfred M. Gloag; 87. J. G. Briggs, George M. Brunton, and Paul Matthews, Bassingham—equal; 90. B. Blacklock, George B. Brand, Adam P. Gray, Roxburghshire; and Andrew J. Rowan—equal; 94. H. L. Cumming, Jacob George, Andrew Grant, Ross-shire; T. C. Ensor-Parry, and E. W. Smyth —equal; 99. J. Arthur, J. M. Johnstone, T. H. Mackinnon, J. B. Mason, Edinburgh; and J. H. Montgomery—equal; 104. R. I. Mayberry, John J. Shannon, and William Young, Slamannan—equal; 107. Thomas P. W. Barty, Dunblane; D. M. Crooks, Jamaica; A. B. Leaky, A. M. Moll, Alfred E. Nalborough, and Alexander Rose—equal; 113. R. G. Archibald, Dollar; Alexander Watt Beveridge; J. R. Bosman, S. Cunliffe, Philip Hallam, R. D. Kidd, F. Pawlett, London; and J. A. Raubenheimer—

equal; 121. Charles Nelson, and A. Walter K. Straton, Tiverton —equal; 123. V. Langmore and C. A. Lawrence—equal; 125. G. J. Moriarty, A. C. Owen, New Zealand; Edward S. Sharpe, and S. A. K. Wilson—equal.

ALEX. CRUM BROWN, M.D., *Professor.*

ELEMENTARY ZOOLOGY.

First-Class Honours.—1. B. P. Watson; 2. G. I. Lecesne (*Medallists*); 3. H. Herd and J. A. Ellerbek—equal.

Second-Class Honours.—5. D. Mackinnon, and S. A. K. Wilson, M.A.—equal; 7. C. J. Shaw; 8. W. Black; 9. J. Arthur; 10. P. Elkarey and G. Henderson—equal; 12. M. F. Anderson and R. D. Brown—equal; 14. A. Rose; 15. D. M. Crooks; 16. A. K. Baxter.

PRACTICAL ZOOLOGY.

First-Class Honours.—1. C. J. Shaw; 2. B. P. Watson (*Medallists*); 3. W. Y. Woodburn; 4. H. Beveridge.

Second-Class Honours.—5. S. A. K. Wilson, M.A.; 6. G. Harrison; 7. A. W. Beveridge; 8. J. N. D. Paulson; 9. R. E. Russell and G. Henderson—equal.

J. C. EWART, M.D., *Professor.*

PHYSICS.

First-Class Honours.—1. Sidney Gilford, Surrey; 2. R. E. Russell, Cape Colony (*Medallists*); 3. W. Lilico, Ireland; 4. J. Dunlop, Lanark; 5. H. Kerr, London; 6. Bertha Jex-Blake, Rugby; 7. E. I. Hall, British Columbia.

Second-Class.—8. D. W. N. Murray, New Zealand; 9. R. C. Low, Scotland; 10. A. Leach, England; 11. J. Fairbairn, British Guiana; 12. A. Clark, Scotland; 13. R. C. Irvine, Tasmania; 14. J. Kirkwood, Edinburgh; 15. S. Cunliffe, Bolton, England; 16. E. Bennett, Ireland; 17. W. Young, Airdrie; 18. W. E. Knight, Dublin; 19. W. M'C. Miller, Ireland; 20. A. O. Hooper, Burton-on-Trent; 21. C. E. F. Gaitskell, St Leonard's-on-Sea; 22. H. L. Cumming, Glasgow; A. W. M. Harvey, Nova Scotia; and Charles Reece, New Zealand—equal; 25. W. C. Burton, Guernsey; 26. T. W. E. Ross, London; J. S. Sewell, Hexham; and H. M. Stumbles, England—equal; 29. Frances M. Harper, Edinburgh.

C. G. KNOTT, D.Sc., *Lecturer.*

PRACTICAL ANATOMY.

STUDENTS OF THE THIRD YEAR.

First-Class Honours.—1. John Pender, Lockerbie, and A. Murray Wood, Leith—equal; 3. Angus M'Nab, B.Sc., B.A., New

Zealand; Norman Paterson, Roxburghshire; and Garnett Wright, Whitehaven—equal (*Medallists*); 6. S. A. Ballantyne, Scotland; O. Charnock Bradley, Lancashire; Alexander Frew, Ayrshire; J. S. Geikie, Perth; P. S. Haldane, Bridge of Allan; G. H. Hanna, Jamaica; H. J. Hoile, M.A., Dundee; H. J. M'Lean, New Zealand; John B. Primmer, Dunfermline; and William Wallace, Scotland—equal; 16. T. H. W. Alexander, Perth; B. H. S. Aylward, England; G. S. Carmichael, Scotland; G. A. Davidson, Wigtownshire; William Girdwood, Cape Colony; Herbert Harris, England; E. B. Jamieson, Shetland; J. G. S. Jamieson, M.A., Ayr; Langworthy Laurie, Worcester; R. G. Leach, Rochdale; D. S. M'Knight, Whitburn; A. A. Martin, New Zealand; W. C. Ross, Scotland; and Alec Trotter, Perth—equal; 30. H. E. Arbuckle, Natal; A. B. Black, Madras; W. I. Dunn, Lauder; J. M. A. Macmillan, Edinburgh; Samuel Rattray, Edinburgh; J. L. Rentoul, Co. Down, Ireland; R. A. Savage, Lagos; S. R. Sibbald, Lockerbie; P. D. Whiriskey, Ireland; and G. D. Whyte, London—equal; 40. A. J. Baird, Port-Glasgow; W. E. Frost, Ireland; J. C. Kennedy, Wales; F. K. Kerr, Leith; A. C. N. M'Hattie, West Indies; J. B. Milne, Montrose; James Munro, Dornoch; and F. D. Simpson, Bathgate—equal; 48. John Craig, Edinburgh; William Eadie, England; Andrew Fleming, Scotland; J. G. M'Dougall, Montrose; and W. S. Scott, Bonnyrigg—equal; 53. G. F. Buist, St Andrews; R. A. Cameron, New Zealand; Malcolm Campbell, Edinburgh; E. G. D. Menzies, Innerleithen; G. A. P. Ross, Dingwall; Noel N. Wade, South Wales; and A. G. Watson, Southport—equal; 60. John H. Bell, Edinburgh; W. P. Cormack, Tain; Thomas Graham; A. J. Mackenzie, Scotland; F. C. Matthew, Corstorphine; H. M. Speirs, Haltwhistle; and N. S. Wells, Burma—equal; 67. M. C. Beatty; Edward Ewart, Moffat; J. L. Green, Edinburgh; F. N. Jaboor; and William Sloss, Australia—equal; 72. J. D. Anderson, Moffat; J. P. Douglas, Lockerbie; T. Grainger-Stewart, Edinburgh; G. W. Guthrie, Liberton; and William Hutchison, Scotland—equal; 77. C. Balfour-Paul, Edinburgh; G. G. Cumming; A. M. Malcolmson, Leith; and J. C. Parker, Alloa—equal; 81. Robert Affleck, Galloway; Henry Alexander, Ireland; J. F. Selkirk, Aberdeen; M. A. Swan, Scotland; and J. H. Wrightson, England—equal; 86. A. D. Spence, Montrose; 87. J. H. M'Kee, Ireland; G. W. Smith, West Indies; and C. E. Southon, India—equal; 90. Ewen Cameron, England; J. G. M'Kenna, Dumfries; and Philip Weatherbe, Nova Scotia—equal; 93. W. L. G. Anderson, Dundee; B. G. Forman, Edinburgh; A. C. Lennie, Edinburgh; and John Morrison, Antrim—equal; 97. J. M. L. Brown, M.A., Ayr; 98. G. H. Lewis, Wales.

Second-Class Honours.—99. C. B. M'Conaghey, Poona; 100.

G B. Butt, India, and A. F. Mackay, Cantyre—equal ; 101. J. W. Barrack ; 102. William M'Lauchlan, Edinburgh.

Fred Hardie, Kirkcaldy, was unavoidably absent from one examination.

CLASS OF LECTURES ON ANATOMY.

SENIOR STUDENTS.

First-Class Honours.—1. A. Murray Wood, Leith (*Medallist*) ; 2. N. S. Wells, Burma.

Second-Class Honours.—3. William Miller, Edinburgh ; 4. A. M. Malcolmson, Leith ; 5. E. W. Lewis, India.

JUNIOR PRACTICAL ANATOMY.

First-Class Honours.—1. P. F. M'Farlan, Dunfermline ; William Miller, Edinburgh ; and Peter Murray, M.A., Morayshire—equal (*Medallists*) ; 4. A. C. Peterson, Australia, and Jas. Woods, Belfast—equal ; 6. William Macdougall, M.A., Rothes ; G. S. Murray, Bo'ness ; and T. A. Smyth, Co. Down, Ireland—equal ; 9. Henry Buist, Dundee ; R. T. Baillie, Kinnaird, Brechin ; E. P. Calder, Berwickshire ; C. W. Saleeby, England ; A. H. Firth, Edinburgh ; R. A. J. Harper, Dalkeith ; A. E. Hunter, Eskbank ; J. H. Meikle, M.A., B.Sc., Inverary ; and A. G. Waugh, Stirlingshire—equal ; 18. J. F. Allan, Scotland ; V. C. de Boinville, Westmoreland ; D. C. Henry, Kirkbride, Creetown ; A. R. Johnston, M.A., Forfar ; and A. C. Keay, Dunkeld—equal ; 23. J. M. Dupont, Bedford ; A. S. Millard, England ; and T. S. B. Williams, Bangor—equal ; 26. W. J. Crow, Edinburgh ; John M'Kenzie, Edinburgh ; J. G. M'Bride, Edinburgh ; W. H. Prentice, M.A., Edinburgh ; J. R. Edward ; and William Eggeling, Scotland—equal ; 32. James Brocket, Lanarkshire ; R. Dods Brown, Edinburgh ; G. C. Burgess, Aberdeen ; John Ross, M.A., and T. B. Shaw—equal ; 37. D. G. Carmichael, Calcutta ; A. R. Hallam ; D. A. Ogilvie, Cupar-Fife ; L. W. Pole, Scotland ; and T. B. Paterson, M.A., Edinburgh—equal ; 42. W. H. Dickinson, Jarrow-on-Tyne ; R. G. Gordon, Chili ; L. C. B. Head, London ; E. L. Meynell, India ; K. D. C. Macrae, Scotland ; and A. B. Ross, Ross-shire—equal ; 48. Stephen Garvin, Ireland ; P. V. Langmore, New South Wales ; and E. W. Lewis, India—equal ; 53. H. K. Macdonald, Sutherland, and N. F. M'Hardy—equal ; 55. E. A. Walker, Scotland ; and R. T. Young, M.A., Bridge-of-Allan—equal ; 57. James Brownlee, Scotland ; and F. L. Rigby, England—equal ; 59. R. M. Grant, Inverness.

Second-Class Honours.—60. C. H. Lindsay, Ireland ; 61. C. W. V. Rutherford, Jedburgh.

Samuel Lyle, Ireland, was unable to complete the examinations because of illness.

CLASS OF LECTURES ON ANATOMY.

STUDENTS OF THE FIRST YEAR.

First-Class Honours.—1. Andrew B. Ross, Ross-shire; 2. F. J. Dawson, India; 3. Sidney Gilford, Surrey; 4. John Dunlop, Lanark; and B. P. Watson, Fifeshire—equal (*Medallists*); 6. C. J. Shaw, Perthshire; 7. C. H. Bösenberg, B.A., Cape Colony; 8. W. H. Swaffield, and S. A. K. Wilson, M.A., Edinburgh—equal; 10. Henry Herd, M.A., Leith; R. C. Low, Scotland; Paul Mathews, Carlisle; and H. L. Spark, Forfar—equal; 14. Adam Clark, Scotland; and T. A. Smyth, Ireland—equal; 16. J. H. Meikle, M.A., B.Sc., Inverary; 17. Harold Kerr, London; 18. C. C. Choyce, B.Sc., New Zealand; and W. F. Smeall, Jedburgh—equal; 20. R. W. Buchanan, Scotland; R. C. Irvine, Tasmania; and E. L. Meynell, India—equal; 23. A. Ellerbek, Denmark; Wilbert Goodchild, Westmoreland; R. M. Grant, Inverness; and James Kirkwood, Scotland—equal.

Second-Class Honours.—27. C. W. V. Rutherford, Jedburgh; and G. W. R. Skeen, Ceylon—equal; 29. A. H. M'Shine, Trinidad; 30. C. M. Campbell, Edinburgh; Isaac Ivey, India; and Alexander Rose, Nairn—equal; 33. A. W. M. Harvey, Nova Scotia; 34. William Lilico, Ireland; and R. E. Russell, Cape Colony—equal; 36. R. J. Bradley, India; and T. M. Cuthbert, Br. Honduras—equal; 38. D. M. Aitken, William Bennett, Ireland; E. A. Braine, Montrose; R. E. Collins, B.A., India; R. A. Glegg, Scotland; L. B. Head, London; and H. C. Miller, Genoa—equal; 45. L. H. J. Bell, Edinburgh; R. P. M'Neill, Stranraer; and D. N. W. Murray, New Zealand—equal; 48. B. P. Ghose, Trinidad; J. S. Sewell, England; H. M. Stumbles, England; John Wier, Ireland: and William Young, Airdrie—equal; 53. J. W. Cathles, Edinburgh; R. G. Gordon, Chili; Charles Reece, New Zealand; and Edwin Wells, Grenada—equal; 57. T. B. Hamilton, Melrose; T. H. Osler, South Africa; and W. R. Reid, England—equal; 60. A. B. dos Remedios, Goa; 61. A. S. Millard, England; 62. Edward Bennett, Ireland; George Henderson, Dunfermline; and C. H. Houghton, Ireland—equal; 65. William Black, Fife; E. E. Cassaday, Dundee; and J. M. Johnston, Muirkirk—equal; 68. B. Blacklock, Scotland; A. G. Martin, Edinburgh; W. S. I. Robertson, Blair Atholl; and Saiduzzafar Khan, India—equal; 72. H. L. Cumming, Glasgow; C. R. Gonin, Transvaal; and Howard Harding, England—equal; 75. R. G. Archibald, India; A. K. Baxter, Scotland; George Harrison, Cumberland; and A. R. Khan, India—equal; 79. A. F. R. Conder, Edinburgh; and A. M. Gloag, Scotland—equal; 81. Henry Beveridge, Scotland; W. S. Laidlaw, Scotland; T. H. Mackinnon, Aldershot; J. J. M'Millan, Moffat; E. J. Morton, Edinburgh; Charles Nelson, Edinburgh; J. L. Palmer, Dublin;

John Politachi, England; E. W. Smyth, Victoria; and George Wight, Edinburgh—equal; 91. A. W. Beveridge, Scotland; J. G. Briggs, India; A. M. Caverhill, Scotland; D. M'K. Crooks, Jamaica; Jan. Dommisse, Cape Colony; R. D. Kidd, Natal; A. M. Moll, Orange Free State; and J. H. H. Pirie, Aberdeen—equal.

The SENIOR "JOHN AITKEN CARLYLE" BURSARY in *Anatomy and Physiology* was awarded to William Miller, Edinburgh.

The JUNIOR "JOHN AITKEN CARLYLE" BURSARY in *Anatomy and Chemistry* was awarded to B. P. Watson, Fifeshire. *Proxime Acces.*—John Dunlop, Fullwood, Lanark.

The MACKENZIE BURSARIES FOR PROFICIENCY IN DISSECTING were awarded to:—A. L. Gurney, Jersey; and W. S. Patton, Sind, India—equal; G. R. Mill, Arbroath; and H. L. Spark, Forfar—equal.

The following gentlemen acted as Prosectors to the Class:—
A. A. Martin, New Zealand.
H. J. M'Lean, New Zealand.
H. M. Speirs, Haltwhistle.
G. D. Whyte, London.

D. HEPBURN, M.D., *Lecturer.*
W. TURNER, Kt., M.B., *Professor.*

PHYSIOLOGY.

SENIOR DIVISION.

FIRST-CLASS HONOURS.—1. R. A. Ross, S. Africa; 2. J. H. Bell, Edinburgh (*Medallists*); 3. E. Ewart, Moffat, and W. S. Scott, Bonnyrigg—equal; 5. Angus M'Nab, New Zealand; 6. G. S. Carmichael, Edinburgh; J. M. A. Macmillan, Edinburgh; and J. Pender, Dumfriesshire—equal; 9. A. J. Hughes, Wales; H. J. M'Lean, New Zealand; N. Patterson, Roxburghshire; M. A. Swan, Paisley; and Garnett Wright, Whitehaven—equal; 14. O. C. Bradley, Lancashire, and F. Young, Kirkcaldy—equal; 16. J. G. Macdougall, Montrose; 17. S. R. Sibbald, Lockerbie, and A. M. Wood, Leith—equal; 19. H. J. Hoile, Dundee, and N. S. Wells, Burma—equal; 21. W. C. Ross, Ayrshire; 22. F. Hardie, Kirkcaldy, and A. Trotter, Perth—equal; 24. A. B. Black, Madras.

SECOND-CLASS HONOURS.—25. G. W. P. Maitland, India; 26. E. B. Jamieson, Shetland; T. S. Shepherd, Wigan; and J. F. Selkirk, Aberdeen—equal; 29. J. K. A. Robertson, Greenock; 30. S. A. Ballantyne, Lanarkshire, and James Munro, Dornoch—equal; 32. A. M. Malcolmson, Leith, and A. A. Martin, New Zealand—equal; 34. J. B. Milne, Montrose; 35. J. C. Gilchrist, Dumfries; H. C. Nixon, Leek; and G. R. Turner, London—equal; 38. J. S. Geikie, Perth; L. Lawrie, Worcester; and L.

C. Peel Ritchie, Edinburgh—equal; 41. J. C. Kennedy, Wales, and F. C. Matthew, Midlothian—equal; 43. T. H. W. Alexander, Perth; W. Girdwood, Cape Colony; H. Mason, Yorkshire; and F. M. Wigg, Australia—equal; 47. J. D. Anderson, Moffat, and G. D. Whyte, London—equal; 49. A. J. Baird, Port-Glasgow; W. Eadie, Cumberland; S. Rattray, Edinburgh; and C. B. Snow, New Zealand—equal; 53. W. I. Dunn, Lauder; J. G. Mackenna, Dumfries; R. A. Savage, Lagos; and H. D. Shepherd, Wigan—equal; 57. R. Hamilton, Bradford, and H. Harris, Lincolnshire—equal; 59. A. Frew, Ayrshire, and F. K. Kerr, Leith—equal; 61. A. W. Wilson, Lincoln; 62. N. E. Harding, Frome; A. C. N. M'Hattie, W. Indies; H. O. Smith, North Berwick; and A. Gordon Watson, Southport—equal; 66. W. Hutchison, Edinburgh; Maung Ba, Burmah; J. B. Primmer, Dunfermline; J. A. Smail, Edinburgh; and T. J. G. Wilson, Tasmania—equal; 71. J. M. L. Brown, Ayr; D. C. L. Fitzwilliams, Wales; D. J. Roberts, Carnarvon; A. D. Spence, Montrose; and C. P. Strong, India—equal; 76. P. S. Haldane, Bridge of Allan; 77. R. Imrie, Castle-Douglas; 78. G. B. Butt, India; G. Gordon Cumming, Calcutta; and G. W. Guthrie, Liberton; 81. J. M. Benson, Sheffield; A. Brydon, Jedburgh; D. S. Macknight, Whitburn; and J. C. Parker, Alloa—equal; 85. R. Affleck, Balmaghie; T. Grainger Stewart, Edinburgh; C. B. Paul, Edinburgh; and C. E. Southon, India—equal; 89. J. Craig, Edinburgh; L. Crossley, England; T. A. Davis, Wales; J. L. Green, Edinburgh; A. D. Nimmo, Edinburgh, and P. C. Raynor, Nottingham—equal.

Unavoidably absent from one of the Examinations :—

First-Class Honours.—J. G. S. Jamieson, M.A., Ayr, and A. G. Martin, Ireland.

Second-Class Honours.—F. D. Simpson, Bathgate; G. F. Buist, St Andrews; and J. R. Prytherch, Wales.

JUNIOR DIVISION.

First-Class Honours.—1. A. R. Johnston, M.A., Forfar; 2. J. Hally Meikle, M.A., B.Sc., Inverary; 3. Peter Murray, M.A., Morayshire; 4. G. C. Burgess, Aberdeen (*Medallists*); 5. A. H. Firth, M.A., Edinburgh; W. Mair, M.A., Edinburgh; and G. R. Mill, Arbroath—equal; 8. A. C. Keay, Dunkeld, and A. G. Waugh, Stirlingshire—equal; 10. G. C. Irvine Robertson, Clackmannan; 11. T. B. Shaw, Ireland; 12. D. Macrae Aitken, M.A., Singapore; C. W. Saleeby, England; and H. L. Spark, Forfar—equal; 15. A. H. Reid, Trinidad; 16. R. T. Baillie, Brechin, and W. E. C. Dickson, Edinburgh—equal; 18. R. W. Buchanan, M.A., Scotland; 19. W. Miller, Edinburgh, and H. St J. Randell, Cape Colony—equal.

SECOND-CLASS HONOURS.—21. W. Macdougall, Rothes, and W. H. Prentice, Edinburgh—equal; 23. R. V. Clark, Edinburgh; J. Dalgleish, British Guiana; G. S. Murray, Bo'ness; and P. F. M'Farlan, Ruthwell—equal; 27. J. Brownlee, Edinburgh; 28. J. Halliday, Dumfries; 29. C. C. Choyce, New Zealand, and R. J. Bradley, India—equal; 31. P. S. Tillard, England; 32. J. F. Allan, Strathspey; 33. John Ross, M.A., Edinburgh; 34. R. E. Collins, B.A., India, and D. A. Stewart, London—equal; 36. A. L. Gurney, Jersey, and A. R. Hallam, Sheffield—equal; 38. E. S. Brett, Yorkshire, and J. L. Duncan, Edinburgh—equal; 40. Abdul R. Khan, India; 41. E. P. Calder, Berwickshire; 42. S. G. Peill, Madagascar, and T. A. Smyth, Co. Down—equal; 44. James Woods, Belfast; 45. L. J. Hood, Australia; 46. R. A. J. Harper, Dalkeith, and G. A. P. Ross, Dingwall—equal; 48. J. W. Duffus, Edinburgh, and G. Pereira, Trinidad—equal; 50. J. M'Kenzie, Edinburgh, and W. G. Porter, India—equal; 52. W. S. Patton, India; 53. A. J. Brock, Scotland, and D. A. Ogilvie, Cupar-Fife—equal.

Unavoidably absent from one of the Examinations :—

FIRST-CLASS HONOURS.—R. A. Belilios, India; C. W. Somerville, Dalkeith; A. C. Begg, New Zealand; A. R. Wallis, England.

SECOND-CLASS HONOURS.—S. Lyle, Ireland.

PRACTICAL PHYSIOLOGY.

FIRST-CLASS HONOURS.—C. Fraser, M.A., Inverness-shire; R. A. Savage, Lagos.

SECOND-CLASS HONOURS.—J. L. Rentoul, Ireland.

WILLIAM RUTHERFORD, M.D., *Professor.*

MATERIA MEDICA.

FIRST-CLASS HONOURS.—1. George H. Hanna, Jamaica; 2. Frank Young, Kirkcaldy; 3. John Pender, Scotland; 4. George Scott Carmichael, Scotland, and Wm. S. Scott, Bonnyrigg—equal (*Medallists*); 6. Davis Heron, Ireland; 7. Robert A. Ross, S. Africa, and Alexander Trotter, Perth—equal.

SECOND-CLASS HONOURS.—9. Edward B. Jamieson, Shetland, and James Monro, Dornoch—equal; 11. Simon A. Ballantyne, Scotland; Herbert Harris, England, and Dunbar B. Hughes, Grenada (W. Indies)—equal; 14. Henry John M'Lean, New Zealand; John M. A. Macmillan, Edinburgh; and Norman Patterson, Roxburghshire — equal; 17. John Ross, M.A., Scotland; 18. Charles Fraser, Inverness; and Alexander C. N. M'Hattie, W. Indies — equal; 20. John Craig, Edinburgh; Dundas S. M'Knight, Whitburn; and Harry Mason, Thorne, Yorkshire—equal; 23. James G. S. Jamieson, M.A., Ayr; 24. A. Branfoot Black, Madras; and A. Murray Wood, Scotland—equal; 26.

James M. L. Brown, Scotland; Norman S. Wells, Burma; and Garnett Wright, Whitehaven—equal; 29. William P. Cormack, Tain; Duncan C. L. Fitzwilliams, Wales; William Ernest Frost, Ireland; and Langworthy Laurie, Worcester—equal; 33. William Inglis-Dunn, Lauder; Henry J. Hoile, Scotland; and Hubert D. Shepherd, Wigan—equal; 36. George F. Buist, St Andrews; L. C. Peel Ritchie, Edinburgh; and William Wallace, Scotland—equal; 39. Malcolm Campbell, Edinburgh; William Eadie, England; Fred. Crichton Matthew, Corstorphine; James F. Selkirk, Aberdeen; S. Ramsay Sibbald, Lockerbie; and Charles B. Snow, New Zealand—equal; 45. John L. Green, Edinburgh; Robert Gerald Leach, Rochdale; and Angus M'Nab, New Zealand—equal; 48. Robert Affleck, Balmaghie, Galloway, and J. Gordon M'Dougall, Montrose—equal; 50. T. Ashton Davies, Wales; H. Crichton Miller, Genoa; Samuel Rattray, Edinburgh; and Matthew A. Swan, Paisley—equal; 54. Henry E. Arbuckle, Natal; Alexander J. Baird, Port-Glasgow; Norman E. Harding, Frome; Horace C. Nixon, Leek; James C. Parker, Alloa; J. Keith A. Robertson, Greenock; and J. S. Shepherd, England—equal; 61. John P. Douglas, Lockerbie; William Girdwood, Cape Colony; Lionel J. Hood, Australia; Tasman J. G. Wilson, Tasmania; and Johannes C. Zuidmeer, Cape Colony—equal; 66. Robert Allan Cameron, New Zealand; Leonard Crossley, England; Andrew Fleming, Scotland; Francis F. C. Jagger, Shropshire; and G. Duncan Whyte, London—equal; 71. Charles M. Anderson, Belfast; Johannes S. Enslin, South Africa; James S. Geikie, Perth; James C. Gilchrist, Scotland; J. Herbert M'Kee, Ireland; John B. Milne, Montrose; A. Gordon Watson, Southport; and Arthur W. Wilson, England—equal.

PRACTICAL MATERIA MEDICA.

SECOND-CLASS HONOURS.—1. Harry Whittaker, England.

THOMAS R. FRASER, M.D., *Professor.*

PATHOLOGY.

JUNIOR DIVISION.

FIRST-CLASS HONOURS.—1. W. J. Barclay, New Zealand; 2. J. G. Jack, Edinburgh (*Medallists*); 3. C. H. J. Watson, Cape Colony; 4. David Ewart, New Zealand, and George Mackay, Montrose—equal; 6. H. T. Holland, Durham; G. D. Laing, Northumberland; T. Livingstone, Durham; J. Luckhoff, Cape Colony; and Arthur Preston, Yorkshire—equal.

SECOND-CLASS HONOURS.—11. W. J. D. Bromley, Lancaster; W. Ewart, New Zealand; James Masson, M.A., B.Sc., Scotland; and Sutherland Simpson, Orkney—equal; 15. G. G. Hay, Abernethy; Maxwell Mackelvie, Campbeltown; J. G. Mitchell,

Sutherlandshire ; and Robert Ritchie, Edinburgh—equal ; 19. H. G. Carlisle, Lancashire, and R. M. Rowe, M.A., Edinburgh—equal ; 21. David Ferrier, Dundee ; John Fullarton, Glasgow ; Irvine K. Herman, Montrose ; John Jeffrey, Jedburgh ; T. C. Mackenzie, China ; and James Miller, B.Sc., Edinburgh—equal ; 27. G. Brogden, England ; J. D. Comrie, M.A., B.Sc., Scotland ; and A. S. M. Peebles, Scotland—equal ; 30. J. Leon Louis, Mauritius ; George Thomson, Edinburgh ; and A. S. Whytock, Scotland—equal ; 33. B. K. Goldsmith, Isle of Man ; 34. William Reid, M.A., Montrose, and W. J. Stuart, Scotland—equal ; 36. Angus Whyte, Easdale ; D. A. Callender, Edinburgh ; Y. A. Djedjizian, Asia Minor ; and H. B. Dodds, Scotland—equal ; 40. J. J. Galbraith, Inverness ; W. M. Mackay, Crook ; William Park, Orkney ; R. B. Turnbull, Scotland ; and L. Maclagan Wedderburn, Forfar—equal ; 45. H. Faulkner ; J. M. Macdonald, Scotland ; A. G. Martin, Ireland ; R. G. Thomson, Fifeshire ; and W. R. Eyton Williams, Wales—equal ; 50. H. M. Mackenzie, Scotland ; Louis N. Macpherson, Edinburgh ; James Orr, Hawick ; William Purves, Scotland ; S. Southall, Birmingham ; and H. B. Sproat, Tobermory—equal ; 56. J. Ramsay Munro, Norwich ; 57. Harvey Baird, Perth ; A. H. Griffith, England ; George H. Menzies, Scotland ; Alexander Mouat, Haddington ; W. A. Murray, Cape Colony ; and R. N. Pringle, Cape Colony—equal ; 63. Arthur M. Holmes, England, and N. D. Walker, London—equal ; 65. John Anderson, Scotland ; F. J. Hathaway, India ; P. A. Maclagan, Edinburgh ; R. A. Macneill, Scotland ; and E. M'Killop Young, Scotland—equal ; 70. T. P. Oates, Cape, and A. H. Wood, Falkland—equal ; 72. P. J. Bodington, Norfolk, and A. S. Frank, Yorkshire—equal ; 74. H. A. H. Gilmer, New Zealand ; R. F. Jardim, British Guiana ; William Macniven ; G. C. M'Leavy, Ireland ; and E. J. Peill, Madagascar—equal ; 79. B. J. Courtney, Altrincham ; D. B. King, Edinburgh ; C. E. Smith, New Zealand ; and V. E. Sorapure—equal ; 83. J. A. Thomson, Wigtownshire ; 84. S. L. Dawkins, S. Australia, and T. B. Gornall, Preston—equal ; 86. D. R. Evans, Wales ; D. Fenton, Forfar ; P. N. M. Macdonald, New Zealand ; W. J. M'Farlan, Scotland ; and A. C. Neethling, Cape—equal ; 91. H. D. Wilson, Australia ; 92. T. S. A. Orr, Wigtownshire.

SENIOR DIVISION.

SECOND-CLASS HONOURS.—1. William Brand, B.A., Shetland ; 2. Frank J. Gray, Scotland ; 3. James Miller, Canary Islands.

PRACTICAL PATHOLOGY.

FIRST-CLASS HONOURS.—1. A. G. Martin, Ireland.

SECOND-CLASS HONOURS.—2. J. B. Cassels, India ; 3. William Purves, Scotland ; 4. J. W. Kerr, Scotland, and T. S. A. Orr,

Wigtownshire—equal; 6. T. Graham, Cumberland; 7. W. J. Macfarlan, Scotland, and H. O. Smith, Scotland—equal; absent through injury from one examination, G. B. Robinson.

W. S. GREENFIELD, M.D., *Professor.*

PRACTICE OF PHYSIC.

SENIOR DIVISION.

First-Class Honours.—1. R. F. M'Nair Scott, Singapore; 2. A. Dingwall Fordyce, Scotland; 3. G. E. J. King, Cheltenham (*Medallists*); 4. A. Sandstein, New Zealand; 5. A. A. Gunn, Strathpeffer; A. Gilmour, Edinburgh; and J. H. Rhodes, Kendal—equal; 8. J. M. Cuthbert, Scotland; 9. A. W. G. Clark, Whitburn; H. H. Roberts, Wales; Ward Smith, England; and A. Goodall, Ayrshire—equal; 13. J. Hunter, Dumfriesshire; and J. Gillon Ross, Calcutta—equal; 15. R. Gibson, Scotland; 16. A. L. Anderson, New Zealand; W. Bell, Barrow-in-Furness; C. M. Pearson, Edinburgh; A. Shearer, Orkney; and W. E. J. Wallis, Aldershot—equal.

Second-Class Honours.—21. D. B. Waters, Wick; 22. J. Spencer Low, Yorkshire; J. C. M'Conaghy, India; and W. Craig, Scotland, equal; 25. W. M. Barker, Fife; and W. M'Kay—equal; 27. L. J. M. Deas, N.-W. P., India; Duncan Forbes, Perth; R. W. M'Kenna, Scotland; and J. W. Mackenzie, Inverness—equal; 31. T. R. Matthews, Jamaica; 32. C. Forsyth, Glasgow; and E. Somerville, Leeds—equal; 34. A. K. Traill, India; G. F. B. Simpson, Edinburgh; and G. Dick, Wick—equal; 37. A. G. Hamilton, Chester; E. W. Lewis, India; E. M'Culloch, Edinburgh; W. P. Meldrum, Mauritius; W. Raine, Darlington; W. Tarr, England; R. C. Verley, Jamaica, W.I.; and A. E. B. Wood, England—equal; 45. W. E. Tellet, Scotland; J. Haworth, Lancashire, and A. E. Brookes—equal; 48. R. Cameron, Perthshire; E. C. G. Maddock, Toronto; G. A. Rorie, Scotland; and C. R. Scott, Scotland—equal; 52. F. T. H. Adamson, Scotland; and C. S. Brebner, Darlington—equal; 54. J. W. Inglis, Perthshire; W. J. Jones, North Wales; and P. E. Millard, Nottinghamshire—equal; 57. G. G. Hay, Scotland; and T. E. Hinks, South Wales—equal; 59. R. N. Brebner, Canada; E. Brunt, England; D. V. M'Intyre, Dundee; L. D. Parsons, B.A., India; and E. R. Branch, St Kitts, B.W.I.—equal; 64. D. W. Maclagan, Edinburgh; 65. L. H. B. Mills, Norwich; A. Whittome, England; and E. C. Peake, Madagascar—equal; 68; H. E. Gibbs, New Zealand; and T. Pretsell, Scotland—equal; 70. E. B. Anderton, Ormskirk; 71. F. P. Bester, South Africa; R. Crawford, England; G. de Labat, Cape Colony; J. Leggate, Holytown; H. G. P. Raeburn, Leith; and W. W. Thom, Blairgowrie—equal; 77. F. F. Kerr; 78. W. J. Nutter,

Lancashire ; J. A. Raeburn, Dollar ; A. H. Thomas, England ; and D. Wardrop, Greenock—equal ; 82. J. M. Gray, Perthshire ; 83. T. M. Continho, Bombay ; D. D. Farquharson, Islay ; and W. W. Maxwell, England—equal.

The following gentlemen, absent from one examination, obtained averages as under :—C. A. B. Horsford, West Indies, 79 per cent. ; R. Pugh, Wales, 60 per cent. ; S. Branch, West Indies, 58 per cent.

JUNIOR DIVISION.

FIRST-CLASS CERTIFICATES.—1. D. A. Callender, Scotland ; and John Jeffrey, Jedburgh—equal (*Medallists*) ; 3. J. G. Jack, Edinburgh (*Medallist*) ; 4. J. W. Mathewson, Dunfermline ; 5. A. M'W. Green, Isle of Skye ; D. Ewart, New Zealand ; and H. M. Mackenzie, Scotland—equal ; 8. J. F. Falconer, Scotland ; 9. C. A. Bentley, Oxfordshire ; and A. S. Whytock, Scotland—equal ; 11. J. Masson, M.A., B.Sc., Scotland ; and G. Mackie, Montrose—equal ; 13. S. Simpson, Orkney ; 14. D. G. Hall, Scotland ; and W. Bennet, Ireland—equal.

SECOND-CLASS CERTIFICATE.—16. D. J. Hughes, N. Wales ; 17. H. B. Dodds, Scotland ; 18. D. A. Macvean, Edinburgh ; 19. E. A. Brown, Cape Colony ; J. C. Carr, England ; and P. H. Macdonald, Scotland—equal ; 22. P. W. Hampton, Isle of Man ; Y. A. Djedjizian, Asia Minor ; and E. J. Peill, Madagascar—equal ; 25. P. P. Ganteaume, Trinidad ; J. L. Louis, Mauritius ; J. Lückhoff, Cape Colony ; and T. S. A. Orr, Wigtownshire—equal ; 29. W. J. Stewart, Scotland ; 30. D. J. Fergusson, Richmond ; W. Reid, M.A., Scotland ; S. Southall, Birmingham ; and J. B. Wilson, Cumberland—equal ; 34. S. Asbury ; F. R. Jones, England ; W. M. Mackay, Crook ; and W. Park, Scotland—equal ; 38. H. E. Coghlan, England ; 39. W. J. M'Farlan, Scotland ; 40. F. J. Gray ; 41. E. G. D. Menzies, Scotland ; 42. P. C. Campariole, Trinidad, and G. Holliday—equal ; 44. C. H. Durant, St Vincent ; T. C. Mackenzie, China ; and H. B. Sproat, Tobermory—equal ; 47. A. P. L. Brown, Plymouth ; A. S. Courtney, England ; A. S. Frank, England ; W. A. Murray, Cape Colony ; and M. C. Morgan, Wales—equal ; 52. A. M. Holmes, England ; C. S. Steavenson, Darlington ; and A. H. Wood, Falkland—equal ; 55. P. J. Bodington, Norfolk ; T. B. Gornall, Preston ; and G. H. Menzies, Scotland—equal ; 58. R. F. Jardin, British Guiana, and J. F. Martin, Lanark—equal ; 60. T. P. Oates, Cape Colony ; and T. M. Ross, Scotland—equal.

T. GRAINGER STEWART, K.B., M.D., LL.D., *Professor.*

MIDWIFERY.

1. A. C. Sandstein, New Zealand ; 2. J. H. Rhodes, Kendal ; 3. A. T. Gailleton, Perth ; and 4. A. Shearer, Orkney—equal (*Medallists*).

FIRST-CLASS HONOURS.—5. R. J. Dick, Dunbar, and D. B.

Waters, Wick—equal; 7. A. C. M'Gilchrist, Islay; 8. W. J. Barclay, New Zealand; 9. A. M'Watt Green, Skye; and R. F. M'Nair Scott, Singapore—equal; 11. R. Gibson, Wigtownshire; 12. Henry Hugh Roberts, Wales; 13. R. W. M'Kenna, Dumfries; 14. D. V. M'Intyre, Scotland; F. T. H. Adamson, Scotland; H. M. Bundey, Australia; William Craig, Kelso; W. N. Barker, Scotland; R. Cameron, Crieff; and A. K. Trail, India—equal.

SECOND-CLASS HONOURS.—21. Duncan Forbes, Perth; 22. Chas. Bentley, Oxfordshire, and William Tarr, Somerset—equal; 24. J. W. Ingles, Crieff, and W. J. Stuart, Scotland—equal; 26. C. Forsyth, Edinburgh; James Haworth, Lancashire; and D. J. Hughes, North Wales—equal; 29. W. J. Nutter, Lancashire; 30. George Dick, Scotland; W. James Jones, North Wales; and J. Spencer Low, Yorkshire—equal; 33. A. Beith George, Montrose; 34. J. W. Mathewson, Dunfermline; 35. D. J. C. Oliver, Scotland, and George Thomson, Scotland—equal; 37. D. A. Callender, Edinburgh; William Reid (M.A.), Montrose; and George A. Rorie, Scotland—equal; 40. R. B. Turnbull, Ross-shire; 41. William Bennett, Ireland; Y. A. Djedjizian, Asia Minor; J. Ramsay Munro, England; T. Rogerson, Scotland; and Angus White, Scotland—equal; 46. J. G. Bell, Australia, and D. B. Gornall, Preston—equal; 48. G. F. B. Simpson, Edinburgh; 49. E. M. Lithgow, India; W. M. Mackay, England; Alexander Mouat, Scotland; and Chas. R. Scott, Scotland—equal; 53. J. M. Gray, Perthshire, and James Miller, Scotland—equal; 55. Thomas Pretsell, Scotland, and Henry Waters, Scotland—equal; 57. D. D. Farquharson, Argyllshire; J. G. Forsyth, Eyemouth; and Robert Ritchie, Scotland—equal; 60. J. G. Jack, Scotland; 61. J. D. Lithgow, Aldershot; Louis W. Macpherson, Edinburgh; and C. E. Smith, New Zealand—equal; 64. W. J. Collinson, Guernsey; R. J. Courtney, Altrincham, and W. W. Maxwell, England—equal.

PRESENT AT TWO EXAMINATIONS ONLY (ARRANGED IN ORDER OF MERIT).—E. P. Baumann, Cape Colony; C. A. B. Horsford, West Indies; R. Pugh, Wales; Henry Wade, Falkirk; P. H. Macdonald, Leith; George G. Hay, Scotland; and Irvine K. Hermon, Montrose.

A. R. SIMPSON, M.D., *Professor.*

SYSTEMATIC SURGERY.

SENIORS.

FIRST-CLASS HONOURS.—1. A. C. M'Gilchrist, M.A., Islay; 2. Charles Chilton, New Zealand, and J. H. Rhodes, Kendal—equal (*Medallists*); 4. W. Carlyle Wilson, India; H. E. Gibbs, New Zealand; 6. A. Gilmour, Edinburgh; 7. R. Gibson, Wigtownshire; 8. W. H. Dawson, New Zealand; 9. George Dick, Wick;

10. William Bennet, Ireland; 11. Henry Wade, Falkirk; 12. Duncan Forbes, Perth; 13. William M. Barker, Cupar-Fife; 14. J. M. Cuthbert, Scotland, and Alfred Shearer, Orkney—equal; 16. R. J. Dick, Dunbar.

SECOND-CLASS HONOURS.—17. A. T. Gailleton, Perth; 18. James R. Anderson, Orkney, and H. H. Broome, Lancashire—equal; 20. R. F. M'Nair Scott, Singapore; 21. Alexander Goodall, Ayrshire; Fred. R. Jones, England; William M'Kay, New Zealand; and Henry H. Roberts, Wales—equal; 25. D. B. Waters, Wick, and C. Mowbray Pearson, Scotland—equal; 27. C. Forsyth, Edinburgh; 28. D. J. C. Oliver, Scotland; 29. T. R. Matthews, Jamaica; 30. C. S. Brebner, Darlington; 31. John B. Wilson, Cumberland; 32. E. P. Baumann, Cape Colony, and D. W. Maclagan, Edinburgh—equal; 34. R. M. Brebner, Canada; A. E. Brooks, Llandudno, and D. J. Hughes, Wales—equal; 37. James Donaldson, Carnwath, and William J. Jones, Wales—equal; 39. James Haworth, Lancashire; W. J. Nutter, Oswaldtwistle, and A. B. Shed, Scotland—equal; 42. W. Raine, Darlington; 43. James Leggate, Scotland; 44. J. A. Raeburn, Dollar, and J. Spencer Low, Yorkshire—equal; 46. G. de Labat, Cape Colony; 47. J. M. Gray, Perthshire; 48. F. F. Kerr, Canada; 49. A. M'W. Green, Skye; 50. Edmund B. Anderton, Lancashire; 51. E. H. Brunt, England; 52. Edmund Branch, West Indies; 53. C. A. Bentley Oxfordshire; 54. Joseph Hunter, Dumfries; 55. D. D. Farquharson, Islay; 56. G. F. B. Simpson, Edinburgh.

Mr Stanley Branch obtained 63.3 per cent. in two of the examinations.

JUNIORS.

FIRST-CLASS HONOURS.—1. Andrew Hunter, Edinburgh; 2. Peter Murray, Morayshire; and 3. William Miller, Edinburgh (*Medallists*); 4. W. E. Carnegie Dickson, Edinburgh, and David Ewart, New Zealand —equal; 6. T. B. Shaw, Ireland; 7. W. H. Prentice, Edinburgh; 8. A. C. Keay, Dunkeld, and G. S. Murray, Bo'ness —equal; 10. St L. H. Gribben, New Zealand; 11. A. L. Gurney, Jersey; 12. David Ferrier, Dundee; L. T. M'Clintock, England; S. G. Peill, Madagascar; and Henry Spark, Forfar—equal.

SECOND-CLASS HONOURS.—16. G. C. Burgess, Aberdeen; 17. A. R. Johnston, Forfar; 18. R. V. Clark, Edinburgh; 19. G. C. J. Robertson, Clackmannan; 20. C. C. Choyce, New Zealand; 21. Wm. M'Dougall, Rothes; 22. W. H. Dickinson, Jarrow; 23. James Brownlee, Scotland; E. P. Calder, Berwickshire; and E. A. Walker, Scotland—equal; 26. James Brocket, Lanarkshire; J. G. M'Bride, Edinburgh; and T. S. B. Williams, Wales —equal; 29. W. Ewart, New Zealand; 30. G. A. Jolly, Edinburgh; 31. G. C. Strathairn, Scotland; 32. J. Dalgleish, British Guiana; A. E. Hunter, Scotland; and John M'Kenzie, Edinburgh—equal; 35. William Eggeling, Scotland; 36. R. T.

Baillie, Brechin; A. G. Waugh, Scotland; and James Woods, Belfast—equal; 39. A. F. G. Masson, Mauritius; H. G. Pesel, Huddersfield; and W. G. Williams, Wales—equal; 42. J. F. Allan, Scotland; James Halliday, Dumfries; J. R. Mill, Arbroath; and W. G. Porter, India—equal; 46. H. K. Macdonald, Sutherland, and J. L. Duncan, Edinburgh—equal; 48. J. W. Duffus, Edinburgh; P. F. M'Farlan, Dumfries; and J. A. L. Wallace, Turriff—equal; 51. Michael W. Robertson, Edinburgh; 52. R. A. J. Harper, Dalkeith, and David Young, Scotland—equal; 54. J. M. Dupont, Bedford; P. V. Langmore, New South Wales; and N. N. Wade, Wales—equal; 57. D. A. Ogilvie, Old Cumnock; 58. R. M. Grant, Inverness, and T. B. Paterson, M.A., Edinburgh—equal; 60. A. H. Firth, Edinburgh; 61. Henry Buist, Dundee; 62. J. F. Haegert, India; 63. A. H. Reid, Trinidad; 64. Charles Douglas, Lockerbie, and A. E. Goldie, Jamaica—equal; 66. E. E. Brown, Auchterarder; 67. J. H. Meikle, Argyle; 68. Stephen Garvin, Ireland; D. C. Henry, Creetown; C. W. Saleeby, England; and D. Sutherland, Scotland—equal; 72. R. V. C. Ash, Natal, and A. J. Brock, Scotland—equal; 74. D. R. Evans, Wales, and V. M. Fergusson, Richmond—equal; 76. F. E. Wilson, Leith; 77. W. S. Patton, India; 78. J. R. Edward, Musselburgh; D. A. Stewart, London; and P. S. Tillard, England—equal; 81. W. Landsborough, Scotland; 82. O. J. Evans, Wales; Alfred Gavin, Ayrshire; and J. A. Thomson, Wigtownshire—equal; 85. L. W. Pole, Scotland; 86. R. J. Bradley, India, and C. W. V. Rutherford, Roxburghshire—equal; 88. Ian S. Stewart, Langholm; 89. Wm. Hamilton, Ireland; 90. A. R. Hallam, Sheffield, and H. C. Martin, Dungannon—equal; 92. A. W. S. Christie, Fife, and H. P. Thompson, England—equal; 94. L. S. Lessing, Cape Colony; 95. J. H. H. Pirie, Aberdeenshire, and T. E. Richards, Wales—equal; 97. G. S. Blandy, Woolwich; E. S. Bret, England; Gavin Forrest, Motherwell; H. W. Gush, Brighton; Wm. Lee, Foolow; and J. P. Steven, Scotland—equal.

PRACTICAL SURGERY.

SENIORS.

HONOURS.—R. Gibson, Wigtownshire (*Medallist*); J. M. Cuthbert, Scotland; W. Carlyle Wilson, India; Wm. Bennett, Ireland; Henry Wade, Falkirk; William M. Barker, Cupar-Fife; Duncan Forbes, Perth; James Donaldson, Carnwath; A. Gilmour, Edinburgh; A. C. M'Gilchrist, Islay; H. H. Broome, Lancashire; R. J. Dick, Dunbar; J. H. Rhodes, Kendal; D. B. Waters, Wick; George Dick, Wick; C. Forsyth, Glasgow; James Haworth, Lancashire; James R. Anderson, Orkney; D. W. Maclagan, Edinburgh; D. J. C. Oliver, Scotland.

HAROLD J. STILES, M.B., *Demonstrator.*

JUNIORS.

HONOURS.—David Ewart, New Zealand (*Medallist*); R. M. Grant, Inverness; A. L. Gurney, Jersey; Andrew Hunter, Edinburgh; Peter Murray, Morayshire; W. H. Prentice, Edinburgh; A. H. Reid, Trinidad; David Young, Scotland; J. Dalgleish, British Guiana; W. E. C. Dickson, Edinburgh; W. Ewart, New Zealand; H. W. Gush, Brighton; A. R. Johnston, Forfar; P. V. Langmore, New South Wales; G. S. Murray, Bo'ness; H. K. Macdonald, Sutherland; T. B. Shaw, Ireland; G. C. Strathairn, Scotland; J. A. L. Wallace, Turriff; James Woods, Belfast; James Brocket, Lanarkshire; James Brownlee, Scotland; W. J. Crow, Edinburgh; O. J. Evans, Wales; W. T. James, Wales; J. R. Mill, Arbroath; William Miller, Edinburgh; Wm. M'Dougall, Rothes; Henry Spark, Forfar; H. P. Thompson, England; N. N. Wade, Wales.

JAMES GRAY, M.A., M.B., *Demonstrator.*
JOHN CHIENE, M.D., *Professor.*

DISEASES OF THE LARYNX, EAR AND NOSE.

FIRST-CLASS HONOURS.—1. Sutherland Simpson, Orkney (*Prizeman*); 2. Henry G. Carlisle, Lancashire; 3. Thomas Livingstone, England.

SECOND-CLASS HONOURS.—4. R. N. Brebner, Canada.

P. M'BRIDE, M.D. *Lecturer.*

Faculty of Music.

WINTER SESSION, 1897-98.

HARMONY.

HONOURS CERTIFICATE.—1. James M. Chisholm, Penicuik (*Medallist*); 2. John Peebles Conn, Penicuik; (*Medallist*).

ADVANCED HARMONY.

FIRST SECTION.

HONOURS CERTIFICATE.—1. John P. Dunn, Edinburgh (*Medallist*).

HONOURABLE MENTION CERTIFICATE.—2. Harry Taylor, Edinburgh; 3. Janet Straton M'Ewen, Stonehaven; 4. Peter M'Gregor, Edinburgh; 5. Christina Watson, Edinburgh.

SECOND SECTION.

HONOURS CERTIFICATE.—1. William E. Clapperton, Edinburgh (*Medallist*).

THIRD SECTION.

HONOURS CERTIFICATE.—1. Agnes Johnston, Edinburgh.

COUNTERPOINT.

FIRST SECTION.

HONOURS CERTIFICATE.—1. John P. Dunn, Edinburgh (*Medallist*).
HONOURABLE MENTION CERTIFICATE.—2. Harry Taylor, Edinburgh; 3. Peter M'Gregor, Edinburgh.

SECOND SECTION.

HONOURS CERTIFICATE.—1. William E. Clapperton, Edinburgh (*Medallist*); 2. James Craig, Edinburgh.

THIRD SECTION.

HONOURS CERTIFICATE.—1. Christina Struthers, Edinburgh (*Medallist*); 2. Agnes Johnston.

HISTORY OF MUSIC.

HONOURS CERTIFICATE.—1. Frank Crosbie, Edinburgh (*Medallist*); 2. James Craig, Edinburgh.
HONOURABLE MENTION CERTIFICATE.—3. Janet Straton M'Ewen, Stonehaven.

MUSICAL ANALYSIS.

HONOURS CERTIFICATE.—1. Christina Struthers, Edinburgh (*Medallist*); 2. Janet Straton M'Ewen, Stonehaven.
HONOURABLE MENTION CERTIFICATE.—3. Kris Allsopp, Carlisle.

FREDERICK NIECKS, *Professor.*

Preliminary Examination Papers for Degrees in Arts, Science, Law (B.L.), and Music.

ENGLISH.—FIRST PAPER.

SATURDAY, 25*th September* 1897.—9 *to* 11 A.M.

FIVE, *and not more than* FIVE *questions are to be answered. Questions* **1, 2** *and* **6** *must be answered by all.*

1. Write an essay, from two to three pages long, on one of the following subjects:—

(*a*) The Utility of National Celebrations.

(*b*) "Reading maketh a full man, conference a ready man, and writing an exact man."

(*c*) The Life and writings of any Victorian novelist or poet.

2. Paraphrase:—

But what avail'd this temperance, not complete
Against another object, more enticing?
What boots it at one gate to make defence,
And at another to let in the foe,
Effeminately vanquish'd? by which means,
Now blind, dishearten'd, sham'd, dishonour'd, quelled,
To what can I be useful? wherein serve
My nation, and the work from Heaven imposed,
But to sit idle, on the household hearth,
A burdenous drone; to visitants a gaze,
Or pitied object; these redundant locks,
Robustious to no purpose, clustering down,
Vain monument of strength; till length of years

And sedentary numbness craze my limbs
To a contemptible old age obscure?
Here rather let me drudge, and earn my bread,
Till vermin, or the draff of servile food,
Consume me, and oft-invocated death
Hasten the welcome end of all my pains.

3. Give a general analysis of the following passage, and parse the words in italics:—

As when, upon a tranced summer night,
Those green-robed senators of mighty woods,
Tall oaks, branch-charmed by the earnest stars,
Dream, and so dream all *night* without a stir,
Save from one gradual solitary gust
Which comes upon the silence, and dies off,
As if the ebbing air had but one wave:
So came these words and went; the *while* in tears
She touched her fair large forehead to the ground.

4. (*a*) Derive *eight* of the following words:—*pilgrim, classic, municipal, square, Wednesday, foreign, surgeon, cousin, church, companion, muscle, derivation.*

Or (*b*) Point out, and give the force of, the prefixes and the suffixes in the following words:—*archbishopric, wanton, separate, remedy, biology, bewilderment, administer, discovery, apostle, affable, redintegrate, invention.*

5. Explain the following grammatical terms:—*voice, mood, conjugation, tense, case, inflection, intransitive verb, apposition, participle.*

6. Re-write, so as to correct and improve, the following sentences, giving reasons for any changes you may make:—

(*a*) No one ever ruined himself more foolishly, more persistently, or so causelessly as he.

(*b*) It is a belief at which we all smile in one another and justify in ourselves.

(*c*) To be a magistrate or a church elder are the objects of the Boer's earthly ambition.

(*d*) Increase of ease and fame have strengthened his inclination to accept things as they were.

SECOND PAPER.

SATURDAY, *25th September* 1897.—12 NOON *to* 2 P.M.

EIGHT, *and not more than* EIGHT *question are to be attempted. Of these* THREE *must be taken from Section A, and of the three* 2 *or* 3 *or* 6 *must be* ONE, THREE *from Section B, and* TWO *from Section C.*

A.

1. Give some account of *two* or *three* (not more) of the following books and personages:—The *Knight's Tale*, Touchstone, Sir Artegall, *MacFlecknoe*, the *Dunciad*, the *Ode on the Passions*, *Christabel*, Dugald Dalgetty, *Childe Harold*, Guido Franceschini.

Or

Mention, with brief particulars of each, *either* the chief English sonnet-writers, *or* the chief essayists in English, *or* the principal dramatists between 1580 and 1640.

2. Sum up briefly Macaulay's view of Clive's character and conduct, and Shakespeare's presentation of the popular leaders in *Coriolanus*.

3. Explain the motives and principles of Louis XI. as given in *Quentin Durward*, and set out Tennyson's estimate of the "rights of woman" in *The Princess*.

4. Note the chief peculiarities of Tennyson's blank verse as shown in your books.

5. Give an account of (*a*) the siege of Arcot, or (*b*) the capture of Schonwaldt, or (*c*) the plot of *Enoch Arden*, or (*d*) the Fifth Act of *Coriolanus*.

6. Write brief notes on—

(*a*) "The page slew the boar,
The peer had the gloire."

(*b*) He comes the third time home with the oaken garland.
(*c*) A desperate duel with a military bully who was the terror of Fort St. David.
(*d*) the glows
And glories of the broad belt of the world.
(*e*) Cramped under worse than Southsea-isle-taboo,
Dwarfs of the gynaeceum.

B.

7. Give a short biography of Strafford *or* of Shaftesbury.

8. Write notes on *four* of the following:—Somerset (Carr), Sir Thomas Fairfax, Prince Rupert, Sir George Mackenzie, Monk, Halifax (Savile), Lauderdale, Sunderland, Archbishop Sharp.

9. Write notes on *four* of the following:—Monopolies, the great Remonstrance, the battle of Marston Moor, the battle of Dunbar, the Triple Alliance, the Cabal, the Highfliers, the campaign of Killiecrankie, the attacks of James II. on the great institutions of the Church of England, the Darien affair.

10. Give some account of the chief naval affairs between the breaking out of the Rebellion and the accession of Anne.

11. What conflicting sympathies affected Scotland at the expulsion of James II.?

C.

12. Enumerate in geographical order, with brief particulars of each, the counties on the *West* coast of Scotland *or* those on the *East* coast of England.

13. Draw a rough map of the Pacific Ocean, indicating the greater political divisions of its coasts, and the chief islands or groups of islands contained in it.

14. Describe the positions of the following mountains and mountain ranges, mentioning the countries adjacent, and the chief rivers rising in them, with any other particulars you may

think proper: the Ural, the Pamirs, the Cordillera, the Carpathians, the Alleghanies, the Altai, Fusiyama, Kilimanjaro.

15. Give a brief description, political and physical, of the Dominion of Canada.

FIRST PAPER.

SATURDAY, *26th March* 1898.—9 *to* 11 A.M.

(FIVE, *and not more than* FIVE, *questions are to be answered. Questions* 1, 2, *and* 6 *must be answered by all.*)

1. Write an essay, from two to three pages long, on one of the following subjects:—

(*a*) *Comus* as an allegory.

(*b*) The characteristics of your ideal friend.

(*c*) "Solitude is sometimes best society."

2. Paraphrase:—

KING JOHN TO HUMBERT.

Hadst thou but shook thy head or made a pause
When I spake darkly what I purposed,
Or turn'd an eye of doubt upon my face,
As bid me tell my tale in express words,
Deep shame had struck me dumb, made me break off,
And those thy fears might have wrought fears in me;
But thou didst understand me by my signs
And didst in signs again parley with sin;
Yea, without stop, didst let my heart consent,
And consequently thy rude hand to act
The deed, which both our tongues held vile to name.
Out of my sight, and never see me more!
My nobles leave me; and my state is braved,
Even at my gates with ranks of foreign powers:
Nay, in the body of this fleshly land,[1]

[1] *i.e.* himself.

This kingdom, this confine of blood and breath,
Hostility and civil tumult reigns
Between my conscience and my cousin's death.

3. Give a *general* account of the following passage, and parse the words in italics :—

Some ladies love the jewels in love's zone
And gold-tipped darts he hath for painless play
In idle scornful hours he flings away;
And some *that* listen to his lute's soft tone
Do love *to vaunt* the silver praise their own :
Some prize his blindfold sight; and there *be* they
Who kissed his wings which brought him yesterday
And thank his wings to-day *that* he is flown.

4. In the following sentence point out the words of classical origin, and re-write it, substituting words of native for words of classical origin :—

(1) Clarendon distinctly says that they perfectly detested the counsels by which the king had been guided, and were so much displeased and dejected at the unfair manner in which he had treated them that they were inclined to retire from his service.

Or (2) Derive *eight* of the following words :—Soar, dyspepsia, twit, aid, immense, diorama, sample, twilight, chain, costume astonish, microcosm.

5. Under what circumstances is the verb singular when a subject consists of two or more nouns (or noun-equivalents) united by the conjunction "and"? Give examples.

6. Re-write so as to correct or improve the following sentences, giving reasons for any changes you may make :—

(*a*) To this moment I am utterly ignorant of any contributors to whom they either have or were called upon to pay money.

(*b*) Being built on the site of an old cemetery, no true Jew could enter Tiberias without ceremonial pollution.

(*c*) At the period of which we are treating, neither the

commerce nor manufactures of Scotland had risen to that height which has since wrought such changes, not only in the appearance of the country, but affecting the very depths and principles of the national character.

(*d*) The enemy had intended to have arrested Colonel Kelly's progress at or near the spot where Captain Ross's party had suffered so severely.

SECOND PAPER.

SATURDAY, *26th March* 1898.—12 *noon to* 2 P.M.

EIGHT, *and not more than* EIGHT, *questions are to be answered. Of these* THREE *must be taken from* SECTION A (*and of the three*, 2 *or* 5 *must be one*), THREE *from* SECTION B, *and* TWO *from* SECTION C.

A

1. Give some account of *two* or *three* (*not more*) of—

(*a*) *Sense and Sensibility, Lorna Doone, Jane Eyre, Aurora Leigh, The Cottar's Saturday Night, Childe Harold, Murder as one of the Fine Arts.*

Or (*b*) Archimago, Baron Bradwardine, Cloten, Smike, Corporal Trim, Dr. Firmin, David Balfour, Sophia Primrose.

NOTE.—*The answer to this question must indicate a first-hand acquaintance with the subjects chosen.*

2. Sketch the characters of David Deans, Prospero, and Will Wimble.

3. Discuss the characteristics of (*a*) Addison's humour, *or* (*b*) Milton's thought, as illustrated in the prescribed texts.

4. Give a full account of *one* of the following:—

(*a*) Jeanie Dean's adventures on the road to London.

(*b*) The story of *The Tempest.*

(*c*) The Spectator's Club.

5. Write brief notes on :—

(*a*) The Everlasting Club treats all other clubs with an eye of contempt, and talks even of Kit Cat and October as a couple of upstarts.

(*b*) Which now we find
Each putter-out of five for one will bring us
Good warrant of.

(*c*) One of the Judges, better acquainted, perhaps, with the Books of Adjournal than with the Book of Samuel, was disposed to make some instant enquiry after this widow of Tekoah, who, as he construed the matter, had been tampering with the evidence.

(*d*) Or whether thou, to our moist vows denied,
Sleep'st by the fable of Bellerus old,
Where the great vision of the guarded mount
Looks towards Mamancos and Bayona's hold.

(*e*) That Orpheus' self may heave his head
From golden slumber on a bed
Of heaped Elysian flowers, and hear
Such strains as would have won the ear
Of Pluto to have quite set free
His half-regained Eurydice.

B

1. Give a short biography of Sir Robert Walpole.

2. Write notes on *four* of the following :—Porteous Riots, Berlin Decree, The Six Acts, Gordon Riots, Battle of Waterloo, Battle of Fontenoy, The War with the United States (1812-14), Catholic Emancipation, Defence of Gibraltar, Bombardment of Copenhagen.

3. Write notes on *four* of the following :—Palmerston, Wellington, Burke, Canning, Nelson, Earl of Chatham, John Wilkes, Earl Grey, Lord Raglan, Warren Hastings.

4. Give some account of India from 1751 to 1764, or of Ireland from 1782 to 1800.

5. Describe the general features of domestic politics from 1815 to 1832.

6. Give some account of Scottish affairs from 1707 to 1746.

C

1. Give a general account of the build, the river systems, and the climate of India.

2. Describe the physical features, the natural resources, the manufactures, and indicate the chief towns, of the plain of the Forth and Clyde.

3. Describe the west coast of Africa, indicating the divisions, by whom they are held, and their importance.

4. Give some account of Japan.

LATIN—Higher Standard.

FIRST PAPER.

Tuesday, 28*th September* 1897.—9 *to* 11 a.m.

I. For Latin Prose :—

The captive replied by praying to be allowed to send his fetters to the god of the Greeks, and to ask if it were his wont to cheat those who had done him good. So the messengers of Croesus put his question to the priestess at Delphi, and listened to the stately response. "Not even a god," she said, "can escape the lot which is prepared for him, and Croesus, in the fifth generation, has suffered for the sin of him who, at the bidding of a woman, slew his lord and seized his power. Much did the god strive that the evil might fall in his children's days, and not on Croesus himself; but he could not turn the Fates aside. For three years he put off the taking of Sardis, for this much only they granted him; and he came to his aid

when the flame had grown fierce on the burning pile. Yet more, he is wrong for blaming the god for the answer that if he went against the Persians he would destroy a great power, for he should then have asked if the god meant his own power or that of Cyrus."

II. Grammar :—

1. *a* Give the chief parts of *vincio, ferio, cogo, pango.*
   b. Parse *sustulerat, malis, nostis, mementote.*
2. *a.* Give the meaning and construction of the prepositions—*coram, penes, iuxta, circum.*
   b. Distinguish *plăga* and *plāga, dīco* and *dĭco, fērias* and *fĕrias, nōtam* and *nŏtam, lāte* and *lăte, lābor* and *lăbor.*
3. Make sentences (and translate them) to illustrate—
   The *Cognate Accusative.*
   Dative of Interest.
   Dum with the Indicative Present, Perfect and Future.
   The use of *quamquam* and of *quamvis.*
   The constructions found with verbs meaning to "forbid."
   The ways in which a prohibition may be expressed directly ("do not say this").

SECOND PAPER.

TUESDAY, 28*th September* 1897.—12 NOON *to* 2 P.M.

(*Praise of Aratus of Sicyon, who after a revolution both compensated the previous owners of property and allowed its present holders to retain it.*)

I.

Translate into English :—

1. O virum magnum dignumque, qui in re publica nostra natus esset! Sic par est agere cum civibus, non, ut bis iam vidimus,

hastam in foro ponere et bona civium voci subicere praeconis. At ille Graecus, id quod fuit sapientis et praestantis viri, omnibus consulendum putavit, eaque est summa ratio et sapientia boni civis, commoda civium non divellere atque omnis aequitate eadem continere. "Habitent gratis in alieno." Quid ita? Ut, cum ego emerim, aedificarim, tuear, impendam, tu me invito fruare meo? Quid est aliud aliis sua eripere, aliis dare aliena? Tabulae vero novae quid habent argumenti, nisi ut emas mea pecunia fundum, eum tu habeas, ego non habeam pecuniam? Quam ob rem ne sit aes alienum, quod rei publicae noceat, providendum est, quod multis rationibus caveri potest, non, si fuerit, ut locupletes suum perdant, debitores lucrentur alienum; nec enim ulla res vehementius rem publicam continet quam fides, quae esse nulla potest, nisi erit necessaria solutio rerum creditarum. Numquam vehementius actum est quam me consule ne solveretur; armis et castris temptata res est ab omni genere hominum et ordine, quibus ita restiti, ut hoc totum malum de re publica tolleretur.

2. dixerat, atque animis pariter certantibus omnes
dant cuneum densaque ad muros mole feruntur.
scalae inproviso subitusque apparuit ignis.
discurrunt alii ad portas primosque trucidant,
ferrum alii torquent et obumbrant aethera telis,
ipse inter primos dextram sub moenia tendit
Aeneas magnaque incusat voce Latinum
testaturque deos, iterum se ad proelia cogi,
bis iam Italos hostis, haec altera foedera rumpi.
exoritur trepidos inter discordia civis:
urbem alii reserare iubent et pandere portas
Dardanidis ipsumque trahunt in moenia regem,
arma ferunt alii et pergunt defendere muros.
inclusas ut cum latebroso in pumice pastor
vestigavit apes fumoque implevit amaro:

illae intus trepidae rerum per cerea castra
discurrunt magnisque acuunt stridoribus iras;
volvitur ater odor tectis, tum murmure caeco
intus saxa sonant, vacuas it fumus ad auras.

II. Sentences.

1. Who is there who does not see how unreasonable this demand of theirs was?

2. It is not likely that any one will think so, but I believe that some one will say so.

3. When you have seen him, send me a letter: if you do not see him, come back at once.

4. It is not doubtful that, if he had known this, he would have asked that the hostages be restored.

5. He attempted what was beyond his strength, and suffered the penalty which he deserved.

FIRST PAPER.

Tuesday, 29*th March* 1898.—9 *to* 11 *o'clock.*

I. For Latin Prose.

Having assembled the whole body of the people in the court before his palace, he assured them that the happiness of seeing them once more in possession of freedom was to him a full reward for all his services; that more delighted with the name of citizen than of sovereign, he claimed no pre-eminence or power above his equals; but remitted entirely to them the right of settling what form of government they would now choose to be established among them. The people listened to him with tears of admiration and of joy. Twelve persons were elected to new-model the constitution of the republic. The influence of Doria's virtue and example communicated itself to his countrymen; the factions which had long torn and ruined

the state seemed to be forgotten; prudent precautions were taken to prevent their reviving; and the same form of government which hath subsisted with little variation since that time in Genoa, was established with universal applause.

II. Grammar.

1. (*a*) Give the chief parts of: *aufero, sedeo, caedo, pergo.*

(*b*) Parse the following, and mark the quantity of every syllable: *dilexeris, innotuit, redito, veneat.*

2. (*a*) Explain the usage of the following words, and construct very brief sentences to illustrate it: *quidem, demum, quŏque, autem.*

(*b*) Distingish carefully the Gerund and Gerundive, and explain their use.

(*c*) Explain shortly the use of the interrogative particles *ne, num, nonne, utrum, necne.*

(*d*) Distinguish *fere, paene; ultra, ultro; pridem, diu.*

(*e*) Express in Latin:—

He came to me at Tusculum.
He crossed from Greece to Asia.
He crossed the river and stayed three days at Mantua.
Three days later he halted near Capua.

SECOND PAPER.

Tuesday, 29*th March* 1898.—12 *to* 2 *o'clock.*

1. Translate:—

(*a*) Placet igitur mihi, patres conscripti, legionis Martiae militibus et eis, qui una pugnantes occiderint, monimentum fieri quam amplissimum. Magna atque incredibilia sunt in rem publicam huius merita legionis. Haec se prima latrocinio abrupit Antonii: haec tenuit Albam: haec se ad Caesarem contulit: hanc imitata quarta legio parem virtutis gloriam consecuta

est. Quarta victrix desiderat neminem: ex Martia non nulli in ipsa victoria conciderunt. O fortunata mors, quae naturae debita pro patria est potissimum reddita! Vos vero patriae natos iudico: quorum etiam nomen a Marte est, ut idem deus urbem hanc gentibus, vos huic urbi genuisse videatur. In fuga foeda mors est: in victoria gloriosa. Etenim Mars ipse ex acie fortissimum quemque pignerari solet. Illi igitur impii, quos cecidistis, etiam ad inferos poenas paricidii luent: vos vero, qui extremum spiritum in victoria effudistis, piorum estis sedem et locum consecuti. Brevis a natura nobis vita data est: at memoria bene redditae vitae sempiterna. Quae si non esset longior quam haec vita, quis esset tam amens qui maximis laboribus et periculis ad summam laudem gloriamque contenderet?

(*b*) [*The duties of a General.*]

Si longa moretur.
obsidio, tum vota cave secura remittas
inclusumve putes; multis damnosa fuere
gaudia; dispersi pereunt somnove soluti;
saepius incautae nocuit victoria turbae.
neu tibi regificis tentoria longa redundent
deliciis, neve imbelles ad signa ministros
luxuries armata trahat. neu flantibvs Austris
neu pluviis cedas, neu defensura calorem
aurea summoveant rapidos umbracula soles.
inventis utere cibis. solabere partes
aequali sudore tuas: si collis iniquus,
primus ini; silvam si caedere provocat usus,
sumpta ne pudeat quercum stravisse bipenni.
calcatur si pigra palus, tuus ante profundum
pertemptet sonipes. fluvios tu protere cursu
haerentes glacie, liquidos tu scinde natatu.
nunc eques in medias equitum te consere turmas;
nunc pedes adsistas pediti. tum promtius ibunt

te socio, tum conspicuus gratusque geretur
sub te teste labor.

II. Sentences.

1. He could not help one of the two men without injuring the other.

2. The road was five feet wide: the soldiers marched in pairs, each man carrying his spear.

3. I asked him why he had done this, why he now accepted money, and why he was going to betray his country: he made no reply.

4. A speech of any length you like can be made upon any subject you please: if you name the subject, it shall be done.

5. When I arrive, I will let you know: at this moment, when I write, I have no information.

Lower Standard.

Monday, 27*th September* 1897.—9 a.m. *to* 12 noon.

I.

(*The beginning of an engagement between the Roman fleet under Livius and that of King Antiochus.*)

Translate into English:—

Duae naves antecedebant Romanam classem, quibus obviae tres fuerunt regiae naves; et, ut in numero impari, duae regiae unam circumsistunt et primum ab utroque latere remos detergunt. deinde transcendunt armati et deiectis caesisque propugnatoribus navem capiunt; una, quae pari Marte concurrerat, postquam captam alteram navem vidit, priusquam ab tribus *circumveniretur*, retro ad classem refugit. Livius indignatione accensus praetoria nave in hostes tendit. adversus quam eadem spe duae, quae unam illam navem circumvenerant, cum inferrentur, demittere remos in aquam ab utroque latere

remiges stabiliendae navis causa iussit, et in advenientes hostium naves ferreas manus inicere et, *ubi pugnam pedestri similem fecissent, meminisse Romanae virtutis nec pro viris ducere regia mancipia* (*slaves*). haud paulo facilius quam ante duae unam, tunc una duas naves expugnavit cepitque.

Account for the mood of *circumveniretur*, and express in *oratio recta*, as words spoken by the general to his men, the exhortation *ubi pugnam pedestri . . . regia mancipia.*

II. Composition.

Translate into Latin:—

"I am still full of care and anxious," said Artabanus, "because I see that two very mighty things are most hostile to thee." "What may those things be?" asked the King; "will the army of the Greeks be more in number than mine, or will our ships be fewer than theirs? For if it be so, we will quickly bring yet another host together." "Nay," answered Artabanus, "to make the host larger is to make these two things worse; and these are the land and the sea. The sea has no harbour which in case of storm can shelter so many ships. The land too is hostile; and, if nothing resists thee, it becomes yet more hurtful the further that we go, for men are never satisfied with good fortune, and so the length of the journey must at the last bring about a famine.

III. Grammar.

1. Decline *respublica* and *volgus* in the singular, and *vis* and *deus* in the singular and plural. Mark the quantity of each syllable in the words *miles, seges, virtus, litus*; and give the genitive singular and genitive plural.

2. Give the comparative and superlative of *beneficus, anxius, tenuis, velox, integer.* Distinguish *decem, deni, decimus*; and give the corresponding forms in the case of the numbers 8, 9, and 11.

3. Parse *dividebam, ademptum, adeptus es, perdideras, placuisset,*

peribat. Give the future infinitive passive, and the genitive plural of the present participle active, of *rapio* and *moneo.*

4. Write short sentences or phrases (translating them) to show the difference between *nostri* and *nostrum*, *meum est* and *est mihi*, *consulo* with dative and *consulo* with accusative, *palam* and *publice*, *quot*, *quotus*, and *quantus.*

IV. Sentences.

Translate into Latin :—

1. I know no one who can do this.

2. When you return, you will find me here.

3. Tell me what this horse cost you.

4. Seeing the enemy drawn up on the plain, each of the two legions returned to its camp.

Monday, 28*th March* 1898.—9 *to* 12 *o'clock.*

I. Translate :—

A Triumphal Procession.

Pone filios incedebat cum uxore Perseus, stupenti et attonito similis, et cui magnitudo malorum mentem omnino eripuisse *videretur.* sequebatur amicorum et familiarum turba, quorum in vultu dolor gravis eminebat, quique, cum semper oculos in in eum figerent, lacrimis rigantes ora, satis indicabant, sese illius malis dolere, suorum immemores. hanc quidem ignominiam deprecatus erat Perseus, *missis* ad Aemilium, qui *orarent*, ne in triumpho duceretur. risit Aemilius hominis ignaviam, et "id quidem" inquit, "in ipsius manu ac potestate et pridem fuit, et nunc est"; tacite monens, ut generosa morte id, quod metuebat, dedecus effugeret. sed forte consilium non admisit mollis animus; et nescio qua spe delenitus, maluit in praedae suae parte ipse numerari. quadringentae inde coronae aureae portabuntur, Paulo ab omnibus fere Graeciae et Asiae civitatibus

in gratulationem victoriae per legatos *dono* missae: grandis sane *pretii*, si per se ipsae spectarentur, sed mediocris accessio immanium opum, quae in hoc triumpho transvectae fuerant.

Account for mood or case of words in italics.

II. For Latin Prose:—

"I will be no man's tributary!" the Indian King replied, "I am greater than any prince upon earth. Your emperor may be a great prince; I do not doubt it when I see that he has sent his subjects so far across the waters; and I am willing to hold him as a brother. As for the Pope of whom you speak, he must be crazy to talk of giving away countries which do not belong to him. For my faith," he continued, "I will not change it. Your own God, as you say, was put to death by the very men whom he created. But mine," he concluded, pointing to his deity—then, alas! sinking in glory behind the mountains—"my god still lives in the heavens, and looks down upon his children."

III. Grammar.

1. Give accusative singular, nominative and genitive plural, with meaning of: *lis, facies, paterfamilias, auceps, vis, cinis.* Decline in the singular: *alterum vas; mas passer.*

2. Give the positive, comparative and superlative of the adverbs formed from: *atrox, miser, dignus, facilis.*

Write in Latin: *two-fold, twenty times, seventy-second, eighteen hundred and ninety-eight.*

3. Give the meaning and the principal parts of: *ĕdo, ēdo; sedeo, sedo; necto, texo; meto, metior.*

Write down all the participles and infinitives of *morior.*

Write short Latin sentences with translation to show the difference between *ne* and *ut non; rĕfert* and *rēfert; quum* and *quando; moneo* (*a*) with infinitives (*b*) with subjunctive; *quisque* and *quisquam.*

IV. Sentences.

1. The army is too large to be easily defeated.
2. He has gone to Athens in Greece to teach philosophy.
3. We ought to smile whether we win or lose.
4. The soldier, seeing the enemy off their guard, hoped to enter their camp, and find out how many they were.

GREEK—Higher Standard.

FIRST PAPER.

Wednesday, 29*th September* 1897.—9 *to* 11 A.M.

I. Translate:—

ἄξιον τοίνυν, ὦ ἄνδρες Ἀθηναῖοι, κἀκεῖνο ἐξετάσαι πῶς ποθ' οἱ πάλαι τὰς τιμὰς ἔνεμον καὶ τὰς δωρεὰς τοῖς ὡς ἀληθῶς εὐεργέταις, καὶ ὅσοι πολῖται τύχοιεν ὄντες καὶ ὅσοι ξένοι. κἂν μὲν ἴδητ' ἐκείνους ἄμεινον ὑμῶν, καλὸν τὸ μιμήσασθαι, ἂν δ' ὑμᾶς αὐτούς, ἐφ' ὑμῖν ἔσται τὸ πράττειν. πρῶτον μὲν τοίνυν ἐκεῖνοι Θεμιστοκλέα τὸν τὴν ἐν Σαλαμῖνι ναυμαχίαν νικήσαντα καὶ Μιλτιάδην τὸν ἡγούμενον Μαραθῶνι καὶ πολλοὺς ἄλλους, οὐκ ἴσα τοῖς νῦν στρατηγοῖς ἀγαθὰ εἰργασμένους, οὐ χαλκοῦς ἵστασαν οὐδ' ὑπερηγάπων. οὐκ ἄρα τοῖς ἑαυτοὺς ἀγαθόν τι ποιοῦσιν χάριν εἶχον; σφόδρα γε, ὦ ἄνδρες Ἀθηναῖοι, καὶ ἀπεδίδοσάν γε καὶ αὐτῶν κἀκείνων ἀξίαν· ὄντες γὰρ πολλοῦ πάντες ἄξιοι προὔκριναν ἐκείνους αὑτῶν ἡγεῖσθαι. καὶ γάρ τοι τῶν ἔργων τῶν τότε, ὦ ἄνδρες Ἀθηναῖοι, οὐδενὸς ἀπεστέρησαν ἑαυτούς, οὐδ' ἔστιν οὐδεὶς ὅστις ἂν εἴποι τὴν ἐν Σαλαμῖνι ναυμαχίαν Θεμιστοκλέους, ἀλλ' Ἀθηναίων, οὐδὲ τὴν Μαραθῶνι μάχην Μιλτιάδου, ἀλλὰ τῆς πόλεως. νῦν δ', ὦ ἄνδρες Ἀθηναῖοι, πολλοὶ τοῦτο λέγουσιν, ὡς Κέρκυραν εἶλε Τιμόθεος καὶ τὴν μόραν κατέκοψεν Ἰφικράτης καὶ τὴν περὶ Νάξον ἐνίκα ναυμαχίαν Χαβρίας.

(*μόρα* = Spartan regiment.)

II. Translate :—

(*a*) οἴμοι· τί δὴ βροτοῖσιν οὐκ ἔστιν τόδε,
νέους δὶς εἶναι καὶ γέροντας αὖ πάλιν;
ἀλλ' ἐν δόμοις μὲν ἤν τι μὴ καλῶς ἔχῃ,
γνώμαισιν ὑστέραισιν ἐξορθούμεθα,
αἰῶνα δ' οὐκ ἔξεστιν. εἰ δ' ἦμεν νέοι
δὶς καὶ γέροντες, εἴ τις ἐξημάρτανε,
διπλοῦ βίου λαχόντες ἐξωρθούμεθ' ἄν.
ἐγὼ γὰρ ἄλλους εἰσορῶν τεκνουμένους
παίδων τ' ἐραστὴς ἦν πόθῳ τ' ἀπωλλύμην.
εἰ δ' εὖ τόδ' ἤδη κἀξεπειράθην τότε
οἷον στέρεσθαι πατέρα γίγνεται τέκνων,
οὐκ ἄν ποτ' εἰς τόδ' ἦλθον εἰς ὃ νῦν κακόν·
ὅστις φυτεύσας καὶ νεανίαν τεκὼν
ἄριστον, εἶτα τοῦδε νῦν στερίσκομαι.
εἶεν· τί δὴ χρὴ τὸν ταλαίπωρόν με δρᾶν;
στείχειν πρὸς οἴκους; κἄτ' ἐρημίαν ἴδω
πολλὴν μελάθρων ἀπορίαν τ' ἐμῷ βίῳ;

Or,

(*b*) τὸν δ' ἀπαμειβόμενος προσέφη πόδας ὠκὺς Ἀχιλλεύς,
"Διογενὲς Λαερτιάδη, πολυμήχαν' Ὀδυσσεῦ,
χρὴ μὲν δὴ τὸν μῦθον ἀπηλεγέως ἀποειπεῖν,
ἦπερ δὴ φρονέω τε καὶ ὡς τετελεσμένον ἔσται,
ὥς μή μοι τρύζητε παρήμενοι ἄλλοθεν ἄλλος.
ἐχθρὸς γάρ μοι κεῖνος ὁμῶς Ἀίδαο πύλῃσιν
ὅς χ' ἕτερον μέν κεύθῃ ἐνὶ φρεσὶν, ἄλλο δὲ εἴπῃ.
αὐτὰρ ἐγὼν ἐρέω ὥς μοι δοκεῖ εἶναι ἄριστα·
οὔτ' ἔμεγ' Ἀτρείδην Ἀγαμέμνονα πεισέμεν οἴῳ
οὔτ' ἄλλους Δαναούς, ἐπεὶ οὐκ ἄρα τις χάρις ἦεν
μάρνασθαι δηΐοισιν ἐπ' ἀνδράσι νωλεμὲς αἰεί.
ἴση μοῖρα μένοντι, καὶ εἰ μάλα τις πολεμίζοι·
ἐν δὲ ἰῇ τιμῇ ἠμὲν κακὸς ἠδὲ καὶ ἐσθλός·

τρύζητε = whimper.

κάτθαν' ὁμῶς ὅ τ' ἀεργὸς ἀνὴρ ὅ τε πολλὰ ἐοργώς.
οὐδέ τί μοι περίκειται, ἐπεὶ πάθον ἄλγεα θυμῷ,
αἰὲν ἐμὴν ψυχὴν παραβαλλόμενος πολεμίζειν.

SECOND PAPER.

WEDNESDAY, 29*th September* 1897.—12 NOON *to* 2 P.M.

I. SENTENCES.

Translate into Greek:—

1. If he had really been a good citizen, he would have wished to be worthy of honour, rather than to be thought so.

2. After the victory he told them that, if they obeyed the laws and did not revolt, the rule of Cyrus would not be hard to bear.

3. Deliberate well before you pass this law; for it will not be in your power to repeal (*λύειν*) it till Solon comes back.

4. Who can say whether Demosthenes did more harm or good to his country by urging the Athenians to resist Philip?

5. The Lacedaemonians had crossed the mountains before we arrived, so that we were not able to attack them at once.

6. Tell me, said Socrates, at what price the Sophist teaches virtue.

II.—GRAMMAR.

1. Give the Future, Perfects Active, Middle or Passive, and Aorists, where existing, of *πλάσσω, πλήσσω, ῥήγνυμι, ἐπανέρχομαι, βλαστάνω, γαμέω, καθοράω, ὄρνυμι.*

2. Distinguish *ἐπίστασο, ἐφίστασο; ἐρεῖν, ἐρέσθαι, ἐρήσεσθαι, εἰρήσεσθαι; ἕλουσα, ἑλοῦσα.*

3. Distinguish by meaning, *πλουτεῖν, πλουτῆσαι; κτᾶσθαι, κεκτῆσθαι; δανείζειν, δανείζεσθαι; πάυειν, παύεσθαι; ποιεῖν ὁδόν, ποιεῖσθαι ὁδόν.*

4. Translate and explain the Syntax of (*a*) *ὁδὸς τριῶν ἡμερῶν.*

(β) ἔπλεον ὡς εἶχον τάχους. (γ) νοσεῖ τὴν ψυχήν. (δ) ἔδεισαν μὴ ληφθῶσι. (ε) λανθάνουσι τοὺς Ἀθηναίους πρὶν τῇ Δήλῳ ἔσχον.

5. Construct sentences to illustrate the constructions of ὥστε and ἐφ' ᾧ.

FIRST PAPER.

WEDNESDAY, 30*th March* 1898.—9 *to* 11 A.M.

I. Translate:—

Τῆς δὲ νυκτὸς τῷ Νικίᾳ καὶ Δημοσθένει ἐδόκει (ἐπειδὴ κακῶς σφίσι τὸ στράτευμα εἶχε τῶν ἐπιτηδείων πάντων ἀπορίᾳ ἤδη καὶ κατατετραυματισμένοι ἦσαν πολλοὶ ἐν πολλαῖς προσβολαῖς τῶν πολεμίων γεγενημέναις) πύρα καύσαντες ὡς πλεῖστα ἀπάγειν τὴν στρατιάν, μηκέτι τὴν αὐτὴν ὁδὸν ᾗ διενοήθησαν, ἀλλὰ τοὐναντίον ἢ οἱ Συρακόσιοι ἐτήρουν, πρὸς τὴν θάλασσαν. ἦν δὲ ἡ ξύμπασα ὁδὸς αὕτη οὐκ ἐπὶ Κατάνης τῷ στρατεύματι, ἀλλὰ κατὰ τὸ ἕτερον μέρος τῆς Σικελίας τὸ πρὸς Καμάριναν καὶ Γέλαν καὶ τὰς ταύτῃ πόλεις καὶ Ἑλληνίδας καὶ βαρβάρους. καύσαντες οὖν πυρὰ πολλὰ ἐχώρουν ἐν τῇ νυκτί. καὶ αὐτοῖς, οἷον φιλεῖ καὶ πᾶσι στρατοπέδοις, μάλιστα δὲ τοῖς μεγίστοις, φόβοι καὶ δείματα ἐγγίγνεσθαι, ἄλλως τε καὶ ἐν νυκτί τε καὶ διὰ πολεμίας καὶ πολεμίων οὐ πολὺ ἀπεχόντων ἰοῦσιν, ἐμπίπτει ταραχή.

II. Translate:—

(*Heracles will not give way to despair even after the murder of his children.*)

Τὰς συμφορὰς γὰρ ὅστις οὐκ ἐπίσταται
θνητὸς πεφυκὼς ὃν τρόπον χρεὼν φέρειν,
οὐδ' ἀνδρὸς ἂν δύναιθ' ὑποστῆναι βέλος.
ἐγκαρτερήσω θάνατον· εἶμι δ' ἐς πόλιν
τὴν σήν, χάριν τε μυρίων δώρων ἔχω,
ἀτὰρ πόνων δὴ μυρίων ἐγευσάμην·
ὧν οὔτ' ἀπεῖπον οὐδὲν οὔτ' ἀπ' ὀμμάτων
ἔσταξα[1] πηγάς, οὐδ' ἂν ᾠόμην ποτὲ

εἰς τοῦθ' ἱκέσθαι, δάκρυ' ἀπ' ὀμμάτων βαλεῖν
νῦν δ', ὡς ἔοικε, τῇ τύχῃ δουλευτέον.
εἶεν· γεραίε, τὰς ἐμὰς φυγὰς ὁρᾷς,
ὁρᾷς δὲ παίδων ὄντα μ' αὐθέντην[2] ἐμῶν.
δὸς τοὐσδε τύμβῳ καὶ περίστειλον νεκροὺς
δσκρύοισι τιμῶν, ἐμὲ γὰρ οὐκ ἐᾷ νόμος,
πρὸς στέρν' ἐρείσας μητρὶ δούς τ' ἐς ἀγκάλας,[3]
κοινωνίαν[4] δύστηνον, ἣν ἐγὼ τάλας
διώλεσ' ἄκων. γῇ δ' ἐπὴν κρύψῃς νεκρούς,
οἰκεῖ πόλιν τήνδ'· ἀθλίως μὲν, ἀλλ' ὅμως
ψυχὴν βιάζου τἀμὰ συγφέρειν κακά.

[1] *στάζειν*, 'let drop.'
[2] *αὐθέντης*, 'murderer.'
[3] *ἀγκάλη*, 'the arm.'
[4] *κοινωνία*, 'common offspring.'

Or,

Τὸν δ' ἄρα Φαίηκες ναυσικλυτοὶ οὐκ ἐνόησαν
ἐρχόμενον κατὰ ἄστυ διὰ σφέας· οὐ γὰρ Ἀθήνη
εἴα ἐϋπλόκαμος, δεινὴ θεὸς, ἥ ῥά οἱ ἀχλὺν
θεσπεσίην κατέχευε φίλα φρονέουσ' ἐνὶ θυμῷ.
θαύμαζεν δ' Ὀδυσεὺς λιμένας καὶ νῆας ἐΐσας
αὐτῶν θ' ἡρώων ἀγορὰς καὶ τείχεα μακρὰ
ὑψηλὰ, σκολόπεσσιν[1] ἀρηρότα, θαῦμα ἰδέσθαι.
ἄλλ' ὅτε δὴ βασιλῆος ἀγακλυτὰ δώματ' ἵκοντο,
τοῖσι δὲ μύθων ἦρχε θεὰ γλαυκῶπις Ἀθήνη·
"οὗτος δή τοι, ξεῖνε πάτερ, δόμος, ὅν με κελεύεις
πεφραδέμεν· δήεις[2] δὲ διοτρεφέας βασιλῆας
δαίτην δαινυμένους· σὺ δ' ἔσω κίε, μηδέ τι θυμῷ
τάρβει· θαρσαλέος γὰρ ἀνὴρ ἐν πᾶσιν ἀμείνων
ἔργοισιν τελέθει, εἰ καί ποθεν ἄλλοθεν ἔλθοι.

[1] *σκολόπεσσιν*, 'palisades.'
[2] *δήεις*, 'thou shalt find.'

SECOND PAPER.

WEDNESDAY, 30*th March* 1898.—12 NOON *to* 2 P.M.

I. SENTENCES.

Translate into Greek:—

1. If I had not known by whom these things were done, I should not have believed you.

2. He says he will not have the boy taught anything but what he himself learnt in his boyhood.

3. They are too young to know what fathers they have been deprived of.

4. In the time of Darius, he perished of disease, while journeying towards Athens.

5. We say that one ought to exercise not only the minds but also the bodies of the younger citizens.

6. Theramenes and his fellow-ambassadors brought back these tidings to Athens. And, as they were coming in, a great mob poured round them, fearing they were returning without accomplishing their object.

II. GRAMMAR.

1. Give the first person singular of the Future Active, Perfect Active, Perfect Middle or Passive, and Aorists Active and Passive, where existing, of *ἀπόλλυμι, φθείρω, φαίνω, τρέφω, ἀφίστημι, ἀναμιμνήσκω, ἀνοίγνυμι, αἱρῶ, φέρω.*

2. Distinguish *οἶκοι, οἴκοι; ἀπιέναι, ἀπεῖναι, ἀφιέναι; δῆσαι, δεῆσαι, δεῖσαι.*

3. Distinguish by meaning, *αἰτεῖσθαι, αἰτιᾶσθαι; ὁρμᾶν, ὁρμεῖν, ὁρμίζειν; μισθοῦν, μισθοῦσθαι; ἔφυσα, ἔφυν; ὃς οὐ ποιεῖ ταῦτα, ὃς μὴ ποιεῖ ταῦτα.*

4. Translate and explain the Syntax of (*α*) *σιγή ποτ' ἐστὶν αἱρετωτέρα λόγου.* (*β*) *ἤρετο ὅποι φέροι ἡ ὁδός.* (*γ*) *ὁ Ἀλέξανδρος*

ἔφασκεν εἶναι Διὸς υἱός. (δ) ὠφελητέα σοι ἡ πόλις ἐστι. (ε) Give any other way of writing this last sentence (δ).

5. Frame sentences to illustrate the construction of *πρίν*; and others to show the meanings of *παρά* with its various cases.

Lower Standard.

Saturday, 25*th September* 1897.—3 *to* 6 p.m.

I. Translate :—

Ἐνταῦθα ἀφίκοντο πρέσβεις ὡς Ἀλέξανδρον παρά τε τῶν ἄλλων ὅσα αὐτόνομα ἔθνη προσοικεῖ τῷ Ἴστρῳ, καὶ παρὰ Σύρμου τοῦ Τριβαλλῶν βασιλέως· καὶ παρὰ Κελτῶν δὲ τῶν ἐπὶ τῷ Ἰονίῳ κόλπῳ ᾠκισμένων ἦκον· μεγάλοι οἱ Κελτοὶ τὰ σώματα καὶ μέγα ἐπὶ σφίσι φρονοῦντες· φιλίας δὲ πάντες τῆς Ἀλεξάνδρου ἐφιέμενοι ἥκειν ἔφασαν. Καὶ πᾶσιν ἔδωκε πίστεις Ἀλέξανδρος καὶ ἔλαβε· τοὺς Κελτοὺς δὲ καὶ ἤρετο ὅ τι μάλιστα δεδίττεται αὐτοὺς τῶν ἀνθρωπίνων, ἐλπίσας ὅτι μέγα ὄνομα τὸ αὑτοῦ καὶ ἐς Κελτοὺς καὶ ἔτι προσωτέρω ἥκει, καὶ ὅτι αὐτὸν μάλιστα πάντων δεδιέναι φήσουσι· τῷ δὲ παρ' ἐλπίδα ξυνέβη τῶν Κελτῶν ἡ ἀπόκρισις· ἅτε γὰρ πόρρω τε ᾠκισμένοι Ἀλεξάνδρου καὶ χωρία δύσπορα οἰκοῦντες, καὶ Ἀλεξάνδρου ἐς ἄλλα τὴν ὁρμὴν ὁρῶντες, ἔφασαν δεδιέναι μήποτε ὁ οὐρανὸς αὐτοῖς ἐμπέσοι. Καὶ τούτους φίλους τε ὀνομάσας καὶ ξυμμάχους ποιησάμενος ὀπίσω ἀπέπεμψε, τοσοῦτον ὑπειπὼν ὅτι ἀλαζόνες Κελτοί εἰσιν.

δεδίττεσθαι = terrify. ὑπειπεῖν = remark.

II. Grammar.

1. Give the Genitive Singular of *γραῦς, γόνυ, γίγας, ὀδούς, ἀκτίς*; the Vocative Singular of *ὄρνις, ποιμήν, σωτήρ, τάλας, πειθώ, κριτής*; the Dative Plural of *λαγώς, πατήρ, οὖς, κύων, ὕδωρ*.

2. Give the comparative degree of *σώφρων, εὐτυχής, σοφός,*

ἡδύς, μωρός, αἰσχρός, χαριέντως, ταχέως, καλῶς, ἄνω, ἐγγύς, σαφῶς.

3. Give the Future, Perfects Active, Middle or Passive, and Aorists, where existing, of ἀκούω, διδάσκω, ἐλαύνω, κάμνω, καθίστημι, τρέπω, τρέφω, τυγχάνω, βούλομαι.

4. Give (*α*) the 2nd and 3rd sing. Perf. Indic. Mid. or Passive of σπείρω, τύπτω, τείνω, βάλλω, φέρω. (*β*) The 3rd sing. and plur. of 1st Aor. Indic. Act. of ἐάω, καλέω, ὠθέω, ὄμνυμι, μένω, δοκέω.

5. Distinguish by meaning, ποῦ, ποῖ, πῶς, πότε; ἔβην, ἔβησα; ἔστην, ἵστην; εἶναι, ἰέναι; δι' ἐμοῦ, δι' ἐμέ.

III. Sentences.

Translate into Greek:—

1. We happened to be marching through the wood.
2. Do not fear those who do such things.
3. We ought to obey those who manage the affairs of the city.
4. Let us honour the wise.
5. If you do evil you will suffer evil.

Saturday, 26*th March* 1898.—3 *to* 6 *o'clock.*

I. Translate:—

Παῖδες ἐμοὶ καὶ πάντες οἱ παρόντες φίλοι, ἐμοὶ μὲν τοῦ βίου τὸ τέλος ἤδη πάρεστιν· ἐκ πολλῶν τοῦτο σαφῶς γιγνώσκω· ὑμᾶς δὲ χρή, ὅταν τελευτήσω, ὡς περὶ εὐδαίμονος ἐμοῦ καὶ λέγειν καὶ ποιεῖν πάντα. ἐγὼ γὰρ παῖς τε ὢν τὰ ἐν παισὶ νομιζόμενα καλὰ δοκῶ κεκαρπῶσθαι, ἐπεί τε ἥβησα, τὰ ἐν νεανίσκοις, τέλειός τε ἀνὴρ γενόμενος τὰ ἐν ἀνδράσι· σὺν τῷ χρόνῳ τε προϊόντι ἀεὶ συνηυξάνετο ἡ ἐμὴ δύναμις, ὥστε καὶ τοὐμὸν γῆρας οὐδεπώποτε ᾐσθόμην τῆς ἐμῆς νεότητος ἀσθενέστερον γιγνόμενον. καὶ τοὺς μὲν φίλους ἐπείδον δι'

ἐμοῦ εὐδαίμονας γενομένους, τοὺς δὲ πολεμίους ὑπ' ἐμοῦ δουλωθέντας. νῦν δ' ἦν τελευτήσω, καταλείπω μὲν ὑμᾶς, ὦ παῖδες, ζῶντας οὕσπερ ἔδοσάν μοι οἱ θεοὶ γενέσθαι· καταλείπω δὲ πατρίδα καὶ φίλους εὐδαιμονοῦντας· ὥστε πῶς οὐκ ἂν ἐγὼ δικαίως μακαριζόμενος τὸν ἀεὶ χρόνον μνήμης τυγχάνοιμι;

II. Grammar.

1. Give the gen. sing. and dat. plur. of *βοῦς*, *μάρτυς*, *ναῦς*, *ὕδωρ*, *πῆχυς*, *μήτηρ*, *θρίξ*, *λέων*, and the accusative plural in all genders of *πρᾶος*, *σῶς*, *πολύς*, *μέγας*.

2. Give the superlative degree of *κενός*, *πέπων*, *πικρός*, *ἁπλοῦς*, *πολύς*, *ἴσος*, *γλυκύς*, *σοφῶς*, *ὀψέ*, *μάλα*, *καλῶς*, *χαριέντως*.

3. Give the gen. dual and plural of *σύ*, *ὁ αὐτός*, *ἐμαυτοῦ*.

4. Give the first person singular of the future active, perfect active, perfect middle or passive, and aorists active, where existing, of—*πάσχω*, *λαμβάνω*, *δέχομαι*, *εὑρίσκω*, *γίγνομαι*, *ἁμαρτάνω*, *κλέπτω*, *τέμνω*, *φαίνω*, *κρίνω*.

5. Give the infinitive of the perf. pass. of *φράζω*, *κόπτω*, *ἀγγέλλω*, *τρέπω*, *φαίνω*; the 3rd plur. of *ἵστην*, *ἔστην*, *ἐτίθην*, *ἐτέθην*; the 3rd sing. pres. conj. active and middle of *πειράω*, *φιλέω*, *δουλόω* (contracted forms); the 3rd sing. imperf. indic. of *ἐάω*, *ἐπίσταμαι*, *ὠνέομαι*, *μέλλω*, *χρή*.

6. What propositions govern three cases? Give the Greek for *twelfth*, *nine times*, *one-third*, *there*, *thence*, *thither*.

III. Sentences.

1. May the gods give peace to the city!

2. Those who fear to do injustice should be honoured.

3. Do not injure even a slave who has done no wrong.

4. The farmer sows that he may reap (*θερίζειν*).

5. If he had not fled, he would have been put to death.

MATHEMATICS—Intermediate and Higher.

FIRST PAPER.

THURSDAY, 30*th September* 1897.—9 *to* 11 A.M.

Candidates may obtain full marks by doing correctly about two-thirds of this paper. But the Examiners may reject a candidate who shows exceptional weakness in any of the sections A, B, C.

The pass mark for Intermediate Candidates is fixed with reference to the total number of marks assigned to questions which fall under the syllabus of the Intermediate Standard; but such Candidates will receive credit for any question they may answer.

A

1. A tradesman's prices are 12 per cent. above cost price. If he allows £1. 6s. 3d. discount on a bill of £21, what profit does he make per cent. ?

2. Resolve into factors

(i) $4y^2z^2-(y^2+z^2-x^2)^2$,

(ii) a^3+b^3-a-b.

3. Simplify

$$\frac{\frac{a-b}{1+ab}+\frac{b-c}{1+bc}}{1-\frac{(a-b)(b-c)}{(1+ab)(1+bc)}}.$$

4. Solve

(i) $\frac{x+a}{x-a}-\frac{x-b}{x+b}=\frac{2(a+b)}{x}$,

(ii) $\begin{cases} x^2-xy=8x+3, \\ xy-y^2=8y-6. \end{cases}$

5. A boat's crew can row 8 miles an hour in still water. What is the speed of a river's current in which it takes them 2 hours and 40 minutes to row 8 miles up and 8 miles down ?

6. If α and β be the roots of $2x^2-5x+3=0$, find the equation whose roots are $\frac{\alpha}{\beta}$ and $\frac{\beta}{\alpha}$.

For what value of m are the roots of the equation $3x^2+4x+m=0$ equal to one another?

7. If $(a+b+c+d)(a-b-c+d)=(a+b-c-d)(a-b+c-d)$, prove $a:b::c:d$.

B

8. If a straight line be drawn through the middle point of one side of a triangle parallel to a second side it bisects the third side.

O is the middle point of BC of the triangle ABC; BM and CN are perpendicular to ANM the bisector of the angle BAC. Prove that OMN is an isosceles triangle.

9. Show that the angle at the centre of a circle is double an angle at the circumference standing on the same arc.

O is the centre of a circle $BCDE$; A is a point outside the circle; and ACB and ADE are straight lines such that BCE is an acute angle. Show that the angle COD and twice the angle CAD are together equal to the angle BOE.

10. Define similar figures.

Prove that if two triangles be mutually equiangular they must be similar.

The chords that cut off similar segments from circles are proportional to their radii.

11. If ABC be a triangle, and AD, which bisects the vertical angle, meets BC in D, prove that $AD^2=BA\cdot AC-BD\cdot DC$.

In the above triangle if $AB=8$ inches, $AC=6$ inches, and $BC=7$ inches, find the length of AD.

C

12. Find one value of A that satisfies the equation

$$2\sin^2 A+5\cos A=4.$$

13. If A be an acute angle and $\sin A = \frac{4}{5}$, find the value of $\tan A + \sec A$.

14. Prove that $\sec A - \tan A = \dfrac{\cos A}{1+\sin A}$.

15. Prove geometrically that $\cos A = \sin(90^\circ + A)$.

16. Two ships sail from the same port, one north at 10 miles an hour, the other north-east at 12 miles an hour. How far apart are they after three hours?

SECOND PAPER.

THURSDAY, 30*th September* 1897.—12 NOON *to* 2 P.M.

A

1. A watch which loses at the rate of 20 seconds per hour is set right at mid-day on Monday. What is the true time when it indicates 7 P.M. on the following Thursday?

2. Simplify

$$\frac{(2x^2-2)(3x^3+3)}{18}\left(\frac{1}{x^2-1}-\frac{x^2+2}{x^4+x^2+1}\right)\left(1+\frac{1}{x-1}-\frac{1}{x+2}\right),$$

3. If $x=b-c$, $y=c-a$, $z=a-b$,

prove that $yz-x^2$, $zx-y^2$, $xy-z^2$, are all equal.

4. State the two propositions upon which the rule for finding the highest common divisor of two expressions is based.

Find whether x^5+x+1 and x^5+x^4+1 have any common factor.

5. Solve the equations

$$(1) \qquad \frac{a-x}{b-x}+\frac{b-x}{a-x}=\frac{5}{2},$$

$$(2) \qquad \left.\begin{array}{c} x+y=3 \\ (x+1)^2-(y+2)^2=4 \end{array}\right\}.$$

6. You can buy from a wine-merchant 10 dozen sherry and 12 dozen claret for £48, and 5 dozen more sherry can be had

for £45 than of claret for £50. Find the price of each per dozen.

7. Define ratio, and determine which of the ratios $a:b$ or $a+x:b+x$ is the greater, all the quantities being positive.

If a, b, c be in continued proportion, $(a-b)(b+c)=b(a-c)$.

B

8. If a quadrilateral be inscribed in a circle, the sum of two opposite angles is equal to two right angles.

If two circles cut in A and B, and any two chords PAQ and PBR be drawn from a point P on one circle to meet the other in Q and R, prove that QR is parallel to the tangent at P.

9. Describe a circle to touch three given straight lines, no two of which are parallel. Show that there are four solutions of this problem.

Draw a circle to touch a given circle and a given straight line at a given point.

10. Find a third proportional to two given straight lines.

D, E, F are the middle points of BC, CA, AB respectively, and P is any point on EF. BP and CP are joined and produced to meet DE and DF respectively in R and Q; prove that AP, BQ, CR are parallel.

11. If two straight lines be at right angles to the same plane, they are parallel to each other.

What is the shortest distance from a given point to a plane; and why?

C

12. Prove from the definitions that, when A is an acute angle, $\sin A=\tan A\div\sqrt{1+\tan^2 A}$.

13. Prove that $2(\cos^6 A+\sin^6 A)-3(\cos^4 A+\sin^4 A)+1=0$.

14. Find the trigonometrical ratios of an angle of 30°.

15. Write down an expression for $\tan \frac{A}{2}$ in terms of the sides of the triangle.

If the sides be 16, 20, 33, find the greatest angle, it being given that

$\log 207 = 2{\cdot}31597$
$\log 1073 = 3{\cdot}03060$
$L \cot 66° 18' = 9{\cdot}64243$, diff. for $1' = 34$.

FIRST PAPER.

THURSDAY, 31*st March* 1898.—9 *to* 11 A.M.

A

1. A vulgar fraction is in its lowest terms. How can it be determined from the nature of the denominator whether the fraction will reduce to a terminating or a circulating decimal; and, in the case of the latter, what is the highest possible number of figures in the circulating period?

2. The population of a town increases every year by 2 per cent. of the population at the beginning of the year. What was the population on 1st January 1895, if the population on 1st January 1898 was 132,651?

3. If $2s = a+b+c$, prove that

$$1 - \frac{a^2+b^2-c^2}{2ab} = 2\left(\frac{s}{b}-1\right)\left(\frac{s}{a}-1\right).$$

4. Express as a single fraction at its lowest terms

$$\frac{a^2-(b+c)^2}{(a+b)^2-c^2} + \frac{b^2-(c+a)^2}{(b-c)^2-a^2} + \frac{c^2-(a-b)^2}{(c-a)^2-b^2}.$$

5. Solve

(i) $\dfrac{1}{a+b+x} = \dfrac{1}{a} + \dfrac{1}{b} + \dfrac{1}{x}$.

(ii) $\left.\begin{aligned} x^2 - 9y^2 &= 64 \\ xy + 3y^2 &= 32 \end{aligned}\right\}$

6. I spend £6 in buying copies of a certain book ; if I were allowed half-a-crown discount off each copy, I should get four books more. What is the price of each copy ?

7. If x be a real quantity, prove that the expression $\frac{x^2+2x-11}{2(x-3)}$ can have all numerical values except such as lie between 2 and 6.

8. Prove that when several fractions are equal, each of them is equal to the sum of all the numerators divided by the sum of all the denominators, provided each of these sums differs from zero.

If $\frac{x}{b-c}=\frac{y}{c-a}=\frac{z}{a-b}$ show that each fraction equals

$$\frac{(x+y)+(y+z)}{c-a}.$$

B

9. The sum of the squares on the two sides of a triangle is double the sum of the squares on half the base and on the median to the base.

If the medians of a triangle ABC meet in O, prove $AB^2+BC^2+CA^2=3\,(OA^2+OB^2+OC^2)$

10. Show that the lines drawn from a point outside a circle to touch the circle are equal.

Show that the hypotenuse of a right-angled triangle, together with the diameter of the inscribed circle, equals the sum of the sides containing the right angle.

11. The triangles, into which a right-angled triangle is divided by the perpendicular from the right angle on the hypotenuse, are similar to the whole triangle and to one another.

If the sides of a right-angled triangle be 3, 4, and 5 inches in

length, find the length of the perpendicular from the right angle on the hypotenuse.

12. If two intersecting planes be each perpendicular to a third plane, their common section shall be perpendicular to that plane.

If a trihedral angle O be formed by three right-angles, and A, B, and C be points on the edges, the orthocentre of the triangle ABC is the foot of the perpendicular from O on the plane ABC.

C

13. One angle of a triangle is 45° and another is $1\frac{1}{2}$ radians. Express the third angle in radians.

14. Express the other trigonometrical ratios of an angle in terms of the cosecant.

15. Prove $(\sin A + \cos A)(\tan A + \cot A) = \sec A + \operatorname{cosec} A$.

16. Show that in any triangle the sides are proportional to the sines of the opposite angles.

17. Find the sine of the smallest angle of the triangle, whose sides are 193, 194, and 195 feet.

SECOND PAPER.

THURSDAY, 31*st March* 1898.—12 NOON *to* 2 P.M.

A

1. A starts business with a certain capital, and five months later he is joined by B with one-third as much, and four months later they admit C, who brings a capital equal to one-sixth of that already subscribed. At the end of the year they divide £1200. How much will fall to the share of each?

2. Express as a single rational fraction in its lowest terms

$$\frac{1}{(x-1)^2} + \frac{1}{x-1} - \frac{1}{x+1} + \frac{1}{(x+1)^2}.$$

3. Find the remainder after dividing x^n+a^n by $x+a$, n being a positive integer.

What is the relation between a and b when x^4+bx^2+ax+b is divisible without remainder by x^2+x+1?

4. If α and β are the roots of the quadratic $ax^2+bx+c=0$ prove that $\alpha+\beta=-b/a$ and $\alpha\beta=c/a$.

5. Using the notation of question 4, show that the equation whose roots are $\alpha(1-\beta)$ and $\beta(1-\alpha)$ is

$$a^2x^2+ax(b+2c)+c(a+b+c)=0.$$

6. Solve the equations $x^3+y^3=35$, $x+y=5$.

7. If $\frac{1}{x}+\frac{1}{y}+\frac{1}{z}=0$, prove that $(x+y+z)^3=x^3+y^3+z^3-3xyz$.

8. Define *ratio*, *proportion*, and prove that if $a : b :: c : d$, then $ad=bc$.

Prove also that $a : a-c :: b : b-d$.

B

9. The sum of two opposite angles of a quadrilateral inscribed in a circle is equal to two right angles.

If a hexagon be inscribed in a circle the sum of any three alternate angles is equal to four right angles.

10. In a circle inscribe a triangle which shall have its angles equal to those of a given triangle.

Show how to arrange the construction that the sides of the triangle may be made parallel to those of the given triangle.

11. If a straight line be drawn parallel to one side of a triangle it shall cut the other sides proportionally.

If in the base BC of an equilateral triangle a point D be taken and AD joined, if also CE be drawn parallel to AB to meet AD produced in E, prove

$$AE : AD = CE : CD.$$

12. On a given straight line describe a rectilineal figure which shall be similar to a given rectilineal figure.

If the homologous sides of two similar triangles be parallel, prove that the lines joining the corresponding vertices intersect in a point.

C

13. Find, by any means, the values of $\tan 45°$, $\sin 30°$, $\sec 60°$.

14. Prove that $1+2\sec^2 A \tan^2 A = \sec^4 A + \tan^4 A$, and

$$\cot A - \tan A = 2\cot 2A.$$

15. Given $\cos\theta = \tan\theta$, find the value of any one of the trigonometrical functions of θ.

16. $ABCD$ is a rectangle, AL is perpendicular to BD and LN perpendicular to BC, prove that $\tan BAN = \sin\alpha\cos\alpha$, where α is the angle ABD.

Lower Standard.

Monday, 27*th September* 1897.—2 *to* 5 p.m.

Candidates may obtain full marks by doing about two-thirds of this paper. But the Examiners may reject a candidate who shows exceptional weakness in any of the sections A, B, C.

A

1. Express 13 cwt. 3 qrs. 7 lbs., as a decimal of 5 tons.

2. Tea is bought at 1s. 9d. a lb., and sold at a profit of $8\frac{1}{3}$ per cent. What weight of tea must be sold to give a profit of £140?

3. Find the length of the side of a square field that contains 1 acre, 2 roods, 4 poles, 15 sq. yards.

4. A man invests £6104 in Consols when they are at $95\frac{3}{8}$, and sells out at $97\frac{1}{4}$. How much does he gain by the transaction?

5. Break up into prime factors, 777, 4329, and 819, and write down their greatest common measure and least common multiple.

6. Prove from first principles that $\frac{2}{3} = \frac{4}{6}$.

B

7. Divide the product of x^3-y^3 and x^3+y^3 by $x^4+x^2y^2+y^4$.

8. Break up into factors

$$2x^2+5x-12,$$
$$x^2-(b-a)x-ab,$$
$$x^3-x^2-x+1,$$
$$x^4+1+2x^2-b^2.$$

9. Simplify

$$\frac{3+2x}{2-x}-\frac{2-3x}{2+x}+\frac{16x-x^2}{x^2-4}.$$

10. Show that $ab=ba$, where a and b are positive integers.

11. Solve

$$\begin{cases} a(x+y)+b(x-y)=2a. \\ y(a+b)-x(a-b)=2b. \end{cases}$$

12. One-third of a ship belongs to A, two-ninths to B, and the rest to C. If C's share is worth £1000 less than half the value of the ship, find what the ship is worth.

13. Solve

(i) $\dfrac{x}{x-1}+\dfrac{x-1}{x}=\dfrac{13}{6}$,

(ii) $4x^2+4ax=b^2-a^2$.

C

14. If a point be taken inside a triangle and joined by straight lines to the ends of one side, prove that the two lines so drawn are together less than the other two sides of the triangle.

The lines joining any point within a triangle to the three vertices are together less than the perimeter of the triangle.

15. What is a parallelogram?

Prove that the opposite sides and angles of a parallelogram are equal.

Enunciate and prove a proposition converse to one of the above statements.

16. Describe a square which shall be equal to a given rectangle.

Prove that the perimeter of the square is less than the perimeter of the rectangle.

17. Of straight lines in a circle, show that the greater is nearer the centre than the less.

Through a given point within a circle draw the shortest possible chord.

18. Prove that in a circle the angle between a secant and a tangent, both drawn from a point in the circumference, is equal to the angle in the alternate segment.

If two circles touch externally at A and any straight line $BCDF$ be drawn cutting both circles, prove that the sum of the angles BAF and CAD equals two right angles.

MONDAY, 28*th March* 1898.—2 *to* 5 P.M.

A

1. Express £·04+·205s. as a decimal of £2. 10s.

2. Simplify $\frac{2{\cdot}3075+{\cdot}0825}{1-{\cdot}984}$.

3. The cost of making a road 500 yards long at 1s. $1\frac{1}{2}$d. per square yard is £375. Find the width of the road.

4. A man bought 374 oranges at 2 a penny, and some others at 3 a penny. If he paid altogether £1, 9s. 11d., how many did he buy at 3 a penny?

5. What sum of money, if laid out for 2 years at 5 per cent. simple interest will amount to £413, 14s. 9d.?

6. If from any number such as 6845 any other number having the same digits, such as 4865, be subtracted, the remainder will be exactly divisible by 9. Explain this.

B

7. Subtract the sum of $\frac{a}{2}-\frac{b}{3}+\frac{c}{4}$ and $\frac{c}{2}+b-\frac{3a}{4}$ from $c-\frac{2b}{3}+\frac{a}{4}$.

8. Find the remainder when x^3+px^2+qx+r is divided by $x-a$.

9. Prove in the case when m and n are positive integers that $a^m \times a^n = a^{m+n}$ and simplify

$$\frac{27a^{m+p}b^{n-q}}{81a^m b^n}.$$

10. Resolve into factors

(i) $9x^2-4y^2$.

(ii) $x^2+ax-bx-ab$.

(iii) $18x^2+27x-35$.

11. Find the G.C.M. and L.C.M. of x^2-4, x^3-8, and x^2-4x+4.

12. Solve

(i) $a(x-a)+b(2x-3a)=2b^2$.

(ii) $\frac{x}{15}+\frac{y}{12}=\frac{x}{3}-\frac{y}{4}=1$.

(iii) $2x(x-5)=12$.

13. A person drives from A to B at the rate of 8 miles an hour: he returns by a road 3 miles longer at the rate of 9 miles an hour and takes $7\frac{1}{2}$ minutes longer on the way. Find the lengths of the roads.

C

14. Straight lines, which join the extremities of equal and parallel straight lines towards the same parts, are themselves equal and parallel.

The straight lines, which join transversely the extremities of two equal and parallel straight lines, bisect each other.

15. If a straight line AB be divided equally at C and unequally at D, prove that $AD \cdot DB = BC^2 - CD^2$.

The difference of the sides of a triangle is less than the difference of the segments of the base made by the perpendicular from the vertex.

16. Every chord of a circle lies wholly within it.

A straight line cannot cut a circle in more than two points.

17. In equal circles equal angles at the centres or at the circumferences stand upon equal arcs.

$ABCD$ is a semicircle whose diameter is AD: the chord BC produced meets AD produced at E; prove that if CE is equal to the radius, the arc AB is equal to three times the arc CD.

FRENCH.

FIRST PAPER.

TUESDAY, 28*th September* 1897.—3 *to* 4.30 P.M.

Translate into French :—

I. It was the same with his conversation. In his most familiar talk there was no wildness, no amusing nonsense, no exaggeration for the sake of momentary effect. His mind was a vast store-house wonderfully arranged. Everything was there, and everything was in its place. It would have been strange indeed if you had asked for anything that was not to be found. The article which you required was not only there; it was ready; in a moment it was brought down, unpacked and displayed. If those who enjoyed the privilege—for a privilege indeed it was—of listening to him, had been disposed to find some fault in his conversation, they might perhaps have observed that he yielded too little to the impulse of the moment. He never appeared to catch a sudden glimpse of a subject in a new light. You never saw his opinions in the making, still rude and requiring to be

fashioned by thought and discussion. They came forth, like the pillars of that temple in which no sound of axe or hammer was heard, finished, rounded, and exactly suited to their places.

II. (1) This book is not worth reading.
(2) Mind your own business.
(3) I wish I could stay with you, but I have no time for playing.
(4) She is not likely to come back this year.
(5) This child must be taken great care of.
(6) That is the very thing I was wishing for.
(7) I had known him for years before he married my sister.
(8) The sooner you come the better.
(9) He would not have succeeded, but for the help I gave him.
(10) Let the worst come to the worst.

SECOND PAPER.

THURSDAY, 30*th September* 1897.—3 *to* 5 P.M.

I.

Translate into English :—

1. Souvent sur la montagne, à l'ombre du vieux chêne.
Au coucher du soleil tristement je m' assieds ;
Je promène au hasard mes regards sur la plaine
Dont le tableau changeant se déroule à mes pieds.

Ici gronde le fleuve aux vagues écumantes,
Il serpente et s'enfonce en un lointain obscur ;
Là, le lac immobile étend ses eaux dormantes
Où l'étoile du soir se lève dans l'azur.

. . . . .

Mais à ces doux tableaux mon âme indifférente
N'éprouve devant eux ni charme ni transports ;
Je contemple la terre ainsi qu'une âme errante :
Le soleil des vivants n'échauffe plus les morts.

De colline en colline en vain portant ma vue
Du sud à l'aquilon, de l'aurore au couchant,
Je parcours tous les points de l'immense étendue
Et je dis : "Nulle part le bonheur ne m'attend."

LAMARTINE.

2. En théorie, Cicéron n'avait pas sur l'esclavage des opinions différentes de celles de son temps. Comme Aristote, il en acceptait l'institution et la trouvait légitime. Tout en proclamant qu'on a des devoirs à remplir envers ses esclaves, il n'hésitait pas à admettre qu'il faut les contenir par la cruauté lorsqu'on n'a pas d'autre moyen d'en être les maîtres ; mais dans la pratique il les traitait avec beaucoup de douceur. Il s'attachait à eux jusqu'à les pleurer quand il avait le malheur de les perdre. Ce n'était probablement pas l'usage, car nous voyons qu'il en demandait presque pardon à son ami Atticus. "J'ai l'âme toute troublée, lui écrivait-il ; j'ai perdu un jeune homme nommé Sosithée, qui me servait de lecteur, et j'en suis plus affligé qu'on ne devrait l'être, ce me semble, de la mort d'un esclave." Je n'en vois qu'un, dans toute sa correspondance, contre lequel il ait l'air d'être très irrité : c'est un certain Dionysius, qu'il fait chercher jusqu'au fond de l'Illyrie et qu'il veut ravoir à tout prix ; mais Dionysius lui avait volé des livres, et c'était un crime que Cicéron ne pardonnait pas. Ses esclaves aussi l'aimaient beaucoup. Il se loue de la fidélité qu'ils lui ont témoignée dans ses malheurs, et nous savons qu'au dernier moment ils voulaient se faire tuer pour lui, s'il ne les en avait empêchés.—G. BOISSIER.

II. Grammar.

1. Write the following in the corresponding plural forms:—Cet arc-en-ciel—Le vent glacial—C'est un chef-d'œuvre—Ce gentilhomme est brutal—Ce monsieur lui-même—C'est moi—Il est tout effrayé—Il ne pense qu'à soi.

2. Which of the following participles are correct, and which incorrect? Give reasons in each case:—Elle s'est *empressé* de me répondre. Nous avez-vous *pardonné*? Combien de livres cet auteur a-t-il *écrit*? Il n'en a pas *écrit* beaucoup. Ce voyage nous a *procuré* plus de plaisir que nous ne nous y étions *attendu*. Je les ai *vu* sortir de chez vous.

3. Translate the following phrases into French, and give a reason for your translation in each case:—(*a*) He will believe anything you tell him. (*b*) I doubt if any of these plans will suit him. (*c*) He fell without doing himself any harm. (*d*) What will you take? I will take anything. (*e*) Any musician could play that. (*f*) Come at any time. (*g*) He will not do it for anything in the world. (*h*) This wheat is worthless; have you any better to offer?

4. Write out (*a*) the imperative (2nd pers. sing. and 1st and 2nd plur.) of *craindre, boire, revenir, s'asseoir, s'en aller, nager, percer, percevoir, finir*; (*b*) the negative imperative of *s'en aller* and *se tromper*.

III. Philology and Literature.

(*Only* one *question to be attempted.*)

1. Give the French words which correspond etymologically to the English:—*Cruiser—Prey—Petticoat—Curfew—Country—Fancy—Foreign—Armour—Frail—Money.*

2. Account for the two forms of such words as *col* and *cou*, *bel* and *beau*, *vieil* and *vieux*.

3. What do you know about Voltaire as a play-writer?

4. What do you know about Diderot's or Massillon's life and works?

FIRST PAPER.

TUESDAY, 29*th March* 1898.—3 *to* 4.30 P.M.

Translate into French :—

(*a*) Ariosto tells a pretty story of a fairy, who, by some mysterious law of her nature, was condemned to appear at certain seasons in the form of a poisonous snake. Those who injured her during the period of her disguise were for ever excluded from participation in the blessings which she bestowed. But to those who, in spite of her loathsome aspect, pitied and protected her, she afterwards revealed herself in the beautiful and celestial form that was natural to her, accompanied their steps, granted all their wishes, filled their houses with wealth, made them happy in love and victorious in war. Such a spirit is Liberty. At times she takes the form of a hateful reptile. She grovels, she hisses, she stings. But woe to those who in disgust shall venture to crush her. And happy are those who, having dared to receive her in her degraded and frightful shape, shall at length be rewarded by her in the time of her beauty.—*Macaulay.*

(*b*) 1. I am sorry not to have found you at home.
2. Let us hope that he will not change his mind.
3. There is no reason for you to be afraid.
4. He hastily made towards the door.
5. Wait for me a moment, please.

SECOND PAPER.

THURSDAY, 31*st March* 1898.—3 *to* 5 P.M.

I. Translate into English :—

(*a*) Il y avait à Glasgow un théâtre où l'on jouait les pièces de Shakespeare. Dire comment on les jouait, est difficile, mais

on peut assurer que ç'eût été un spectacle curieux pour un dandy de Londres, si l'on songe que les trois quarts au moins de la population de Glasgow parlaient encore l'écossais et que la moitié des acteurs étaient des montagnards. C'était l'enfance de l'art, dans le temps même où Garrick le portait au plus haut degré en Angleterre. Cependant dans la troupe il se trouvait un acteur qu'eût envié Londres même, si Londres eût pu lui apprendre à se défaire de son accent écossais : un beau jeune homme de vingt-cinq ans, grand, bien fait, d'une figure noble et gracieuse en même temps, dont tous les mouvements, toutes les poses, avaient cette souplesse majestueuse et fière particulière aux montagnards. Il se nommait MacGrégor, et on racontait des traits de sa jeunesse qui prouvaient son courage et son intrépidité. M. AYCARD.

(*b*) Oh ! combien de marins, combien de capitaines,
Qui sont partis joyeux pour des courses lointaines,
Dans ce morne horizon se sont évanouis !
Combien ont disparu, dure et triste fortune,
Dans une mer sans fond par une nuit sans lune,
Sous l'aveugle océan à jamais enfouis !

Combien de patrons morts avec leurs équipages !
L'ouragan de leur vie a pris toutes les pages
Et d'un souffle il a tout dispersé sur les flots.
Nul ne saura leur fin dans l'abîme plongée.
Chaque vague, en passant, d'un butin s'est chargée ;
L'une a saisi l'esquif, l'autre les matelots.

Nul ne sait votre sort, pauvres têtes perdues !
Vous roulez à travers les sombres étendues,
Heurtant de vos fronts morts des écueils inconnus.
Oh ! que de vieux parents, qui n'avaient plus qu'un rêve,
Sont morts, en attendant tous les jours sur la grève
Ceux qui ne sont pas revenus. V. HUGO.

II. Grammar.

1. Give the plural of the following compound words: Demi-dieu, Nouveau-né, Sourd-muet, Bleu-clair, Court-vêtu.

2. Translate the two following sentences and explain the difference of construction:—

I made him sing. I made him sing that song.

3. Write the following sentences with the negative *ne . . . pas* added to the principal verb, and give rules for the changes that must take place in the following clause:—

(*a*) Je suis certain qu'il le fera.

(*b*) Je crains qu'il ne réponde trop tard.

(*c*) Je doute qu'il vienne.

4. Give the rule for agreement of past participles in reflexive verbs. Add examples.

III. Philology and Literature.

(*Only* one *question to be attempted.*)

1. Account for the double gender of the words: *Voile, Livre, Somme, Tour.*

2. Derive from French elements the words: *vaurien, malgré, naguère, néanmoins, colporter, gendarme.*

3. Give the names of the authors of *ten* of the following works:—Corinne, Les feuilles d'automne, Le Génie du Christianisme, Histoire du Consulat et de l'Empire, René, De l'Allemagne, Le Père Goriot, Le Roi des montagnes, Consuelo, Les Harmonies poétiques et religieuses, Hernani, La petite Fadette, Colomba, Eugénie Grandet, Histoire de la Révolution d'Angleterre.

4. Give a summary of any *one* of the above works that *you have read.*

5. What do you know about Michelet's life and works?

GERMAN.—FIRST PAPER.

WEDNESDAY, 29*th September* 1897.—3 *to* 4.30 P.M.

Translate into German :—

(*a*) While yet the last word trembled upon the earl's lips, a light flashed along the floors, hitherto illumined only by the stars and the full moon. And presently Isabel, in company with the lady whom her mother had referred to, passed into the room, on her way to her private chamber. The countenance of this female diplomatist, whose talent for intrigue was well known, but whose name history has concealed, was soft and pleasant in expression, though the sharpness of the features, the thin compression of the lips, and the harsh dry redness of the hair corresponded with her wily and treacherous character. She bore a light in her hand, and its rays shone full on the disturbed and agitated face of the duchess. Isabel perceived at once the forms of her parents, and stopped short in some whispered conversation, and uttered a cry almost of dismay.—LYTTON.

(*b*) 1. There is no getting on with him.

2. As far as I can remember, there were no mistakes in your exercise.

3. Have you considered the pros and cons of this matter? I don't think you have.

4. You believe he would do it? Not until he had lost his last farthing.

5. There is a draught in the room; you must take care or you will catch cold.

SECOND PAPER.

FRIDAY, 1*st October* 1897.—9 *to* 11 A.M.

I.

Translate into English :—

(*a*) An dieſem Arbeitstiſche ſaß mit ihm ſein Sekretär, zuweilen

auch seine Schwiegertochter. Im Winter hielt er auch hier seine kleinen Mittagsmahle, zu denen er oftmals seinen vertrautesten Umgang zog. Man kann sich denken, daß auf diese Weise hier köstliche Stunden genossen wurden. Selbst Karl August und der jetzige Erzherzog verschmähten es nicht, Göthe in diesen engen Räumen zu besuchen. In der Regel war er in diesem Zimmer allein; wollte er Leute sehen, so veranstalteten die Damen seines Hauses in den Gesellschaftszimmern kleine Feste, als deren höchster Schmuck der gefeierte Mann auf eine oder zwei Stunden erschien. Von allen den Leuten, welche die Postpferde am Morgen nach Weimar brachten, um sie am Abend wieder wegzuführen, betrat keiner das Heiligthum des Arbeitszimmers. Man erzählt als eine auffallende Thatsache, daß es dem König von Baiern gelungen, sich dieses Heiligthum zu öffnen.—STERNBERG.

(*b*) Seht, wie die Tage sich sonnig verklären!
Blau ist der Himmel und grünend das Land.
Klag' ist ein Mißton im Chore der Sphären!
Trägt denn der Himmel ein Trauergewand?

Hebet die Blicke, die trübe sich senken!
Hebet die Blicke, des Schönen ist viel!
Jugend wird selber zu Freuden uns lenken,
Freud' ist der Weisheit belohnendes Ziel.

Muthig! Auch Leiden, sind einst sie vergangen,
Laben die Seele, wie Regen die Au';
Gräber, von Trauercypressen umhangen,
Malet bald stiller Vergißmeinnicht Blau.

Freunde, wir sollen, wir wollen uns freuen,
Freud' ist des Vaters erhab'nes Gebot,
Freude der Unschuld kann niemals gereuen,
Lächelt durch Rosen dem nahenden Tod.

SALIS.

II. Grammar.

1. Give the third persons singular and plural of the present and past indicative of all irregular verbs in extract I. (*a*).

2. Give five adjectives that govern the genitive case and five that govern the dative.

3. Show, by examples, the various meanings of the verb laſſen.

4. Distinguish between superlative absolute and superlative relative; give examples of the *various* kinds of each superlative.

III. Philology and Literature.

(*One* question only to be answered.)

1. Give the derivation of all compound nouns in extract I. (*a*).

2. State the roots from which the various forms of the German verb *to be* are derived (ſein, bin, war, geweſen).

3. In what philological relation does English stand to German?

4. Give the origin, and state shortly the purport, of either: *Die Wahlverwandtſchaften*, *Werther's Leiden* or *Torquato Tasso*.

5. Which plays of Schiller owe their origin to his historical studies? What is his position as a historian?

6. Give a short sketch of the life of Lenz *or* of Schubert; and mention some of the writings of each.

FIRST PAPER.

Wednesday, 30*th March* 1898.—3 *to* 4.30 p.m.

(*Candidates may use either English or German Script.*)

Translate into German:—

(*a*) At length he reached the mountains of Strathglass and was compelled to hide himself in a cavern where seven robbers

had taken up their abode. These men readily afforded refuge to the wanderer, and recognising the Prince, for whom they had repeatedly ventured their lives, they vowed unalterable devotion to his cause. With these men Charles Edward remained for about three weeks, and it was with the utmost difficulty they would permit him to leave them. "Stay with us," said the generous robbers; "the mountains of gold which the Government have set upon your head may induce some gentleman to betray you, for he can go to a distant country and live on the price of his dishonour; but to us there exists no temptation. We can speak no language but our own—we can live nowhere but in this country, where, were we to injure a hair of your head, the very mountains would fall down to crush us to death."

(*b*) 1. He thought the best thing would be to say no more about it.

2. When he was asked if he had followed the advice that had been given to him, he said he had not.

3. He said he had not seen me coming.

4. Whatever his opinion may be, I am sure it is worth discussing.

5. I am looking forward to meeting you soon again.

SECOND PAPER.

FRIDAY, 1*st April* 1898.—9 *to* 11 A.M.

I. Translate into English :—

(*a*) Es war im Sommer des Jahres 1826, als ich mit einem Freunde in der ſchönen Bucht von Capri landete. Ich hörte das Meer um alle jene wunderbar geſtalteten Felſen rauſchen, die ſchon von Neapel aus meinen Sinn zauberiſch gefangen genommen. Mit ihren Felſen und Höhlen und hängenden Gärten und alten Trümmern und neuen Städten und Felſentreppen war mir die Inſel ſchon

von fern als eine besondere Welt erschienen, erfüllt von Wundern und umschwebt von grauenvollen und lieblichen Sagen, und nun da meine Zeit nicht eng beschränkt war, durfte ich hoffen, diese Welt in allen ihren Grenzen durchforschen zu können. Der Strand erfüllte sich bei unserer Ankunft mit Männern und Jünglingen, Weibern und Mädchen, die wohl imstande waren, an die alte, schöne, griechische Bevölkerung des Eilands zu erinnern. Ein munterer Bursche ergriff unser weniges Gepäck, und langsam folgten wir dem Zuge nach der Stadt.. Der Knabe führte uns in das Gasthaus des Don Papago. Unser Wirt stellte sich mir zugleich als den Richter des Ortes vor, und ich war sehr erfreut, in ihm einen unterrichteten Mann, und in seiner Bibliothek mehrere Bücher, lateinische und italienische, zu finden, die teilweise von Capri handelten.

KOPISCH.

(*b*) Ein sanfter Morgenwind durchzieht
Des Forstes grüne Hallen,
Hell wirbelt der Vögel muntres Lied,
Die jungen Birken wallen.

Das Eichhorn schwingt sich von Baum zu Baum,
Das Reh durchschlüpft die Büsche,
Viel hundert Käfer im schattigen Raum
Erfreu'n sich der Morgenfrische.

Und wie ich so schreit' in dem lustigen Wald,
Und alle Bäum' erklingen,
Und um mich her Alles singt und schallt,
Wie soll ich allein nicht singen?

Ich singe mit starkem, freudigem Laut
Dem, der die Wälder säet,
Der droben die luftige Kuppel gebaut
Und Wärm' und Kühlung wehet.

EBERT.

II. Grammar.

1. State briefly the difference between (*a*) wiſſen and kennen (English, "to know"); (*b*) ſondern and aber (English, "but"); (*c*) als, wenn, and wann (English, "when"); (*d*) die Ehemänner, die Eheleute; (*e*) der Buſch and das Gebüſch. Form short sentences to illustrate the difference in the first three cases.

2. (*a*) State the cases governed by the following prepositions, verbs and adjectives; wegen, nach, gehorchen, folgen, müde; (*b*) state the prepositions required after the following verbs and adjectives: zielen, ſich freuen, denken, zufrieden, begierig; (*c*) form short sentences illustrating the use of these prepositions, verbs, and adjectives.

3. Give the second person singular of the imperfect indicative, and the past participle of: abziehen, rathſchlagen, ſich durchhauen, erbitten, beten.

4. Translate into German: Nothing good; many a brave soldier (*in two ways*); what are you talking of? on my account.

III. Philology and Literature.

Only one *question to be attempted.*

1. Explain philologically: (*a*) the two different stem-vowels in ich ward, wir wurden; ich darf, wir dürfen; (*b*) the inflected singular of Erde in „im Himmel und auf Erden."

2. (*a*) Give derivation and meaning of any *five* of the following words: Geſchichte, höflich, Bucht, Verdacht, Gruft, innig, Mädchen.

(*b*) Form one substantive from each of any *five* of the following verbs, and give the meaning of the derivative: fließen, treten, ſchließen, gehen, fliehen, binden, geben. (Note.—The Infinitive as subject will not be accepted, nor will words formed with the prefix ge- or the suffix -er).

3. (*a*) August Wilhelm von Schlegel as literary critic and translator: write a short note on him.

(*b*) Give the titles of four of Uhland's ballads, and describe one of them.

4. Heine's position with regard to the romantic school: what were the tendencies of this school? Characterise Heine's lyric poetry, and give some illustrations.

DYNAMICS.

FRIDAY, 1*st October* 1897.—1 *to* 4 P.M.

Candidates may obtain full marks by doing about two-thirds of this paper.

1. State the rule for the composition of velocities.

A ship sailing due north from A to B at the rate of 8 miles per hour should reach her distination in 10 hours; but after sailing $12\frac{1}{2}$ hours she is found at C, north-west from B, whither she has been carried by a current setting due west. Find the velocity of the current and the distance BC.

2. State the Second Law of Motion, and mention any evidence in support of it.

Sketch the proof of the equation $mv = Ft$ for a body moving from rest under a constant force.

3. Define the *angular velocity* of a body about a point, and find the relation between the linear velocity and the angular velocity about the centre of a point moving uniformly in a circle.

Find the linear velocity of a point on the equator in consequence of the earth's rotation, the earth's radius being 4000 miles.

4. Explain the terms *work*, *kinetic energy*, *power*, and prove that the kinetic energy lost by a body projected upwards is equal to the work done by it against gravity.

Find the theoretical horse-power of a water-wheel if the stream supplying it be 1 yard wide, 1 foot deep, the fall 8 feet, and if the water move at the rate of 44 feet per minute.

5. If a body be projected vertically upward with velocity u, prove that the height attained in t seconds is $ut - \frac{1}{2}gt^2$.

Two bodies are thrown up vertically from the same point with the same velocity at an interval of T seconds. Find when they will meet.

6. Prove that the tension is the same at all points of a straight massless string supporting a weight.

Two masses m, m' connected by a string are laid on a smooth table, one of them being just at the edge. If it fall over, find the velocity with which it will move at any time.

7. Show how to resolve a force into two components acting in given directions.

Prove that a force may be resolved in an infinite number of ways into three forces parallel to three given directions in one plane.

8. Find the conditions of equilibrium of a body under three parallel forces in one plane.

A uniform square plate of weight W rests horizontally on three props placed respectively at two adjacent angles and the middle point of the opposite side; find the greatest weight which can be placed at one of the other angles without causing it to topple over.

9. State the conditions of equilibrium of a rigid body under any forces in one plane.

A peg is fixed two feet from a smooth vertical wall. A smooth rod without mass rests on the peg with one end against the wall and a heavy particle hung from the other end. Find the length of the rod.

10. Show how to find the centre of gravity of a number of equal particles.

How can the centre of gravity of a plane lamina be found by experiment?

11. Find the force required to raise a given mass by means of the block and tackle.

If each block weighs 5 lb. and has three pulleys, find the force required to raise 1 cwt.

12. Give a formula for finding the pressure on a plane area immersed in liquid.

A cube, whose edge is one foot, is immersed in water with one edge in the surface and the faces which meet in it equally inclined to the surface. Find the pressures on these faces.

13. Prove that the force exerted by a liquid on an immersed body is equal to the weight of the liquid displaced, and state its line of action.

A vessel containing water is placed in one scale pan of a balance and counterpoised. A piece of copper weighing 44 grammes is then suspended in the water by a string from the ceiling. What change in the equilibrium of the balance will take place, and what weight will restore it, the specific gravity of copper being 8·8 ?

14. Define the term *density*.

What would be the density of an alloy of 8 grammes of copper and 1 gram of zinc if there were no contraction or expansion, the densities of copper and zinc being 8·8 and 6·8 respectively ?

15. State the relation between the pressure and density of a gas at constant temperature.

How may this relation be experimentally tested ?

A uniform tube, open at both ends, is bent to form 4 vertical branches each 30 inches long, with bends whose lengths may be neglected. As much mercury is poured in at one of the open ends as would fill 30 inches of the tube and then an equal quantity at the other end : find where the mercury will stand in the four branches.

FRIDAY, 1*st April* 1898.—1 *to* 4 P.M.

1. Show how to represent geometrically (1) a velocity; (2) the resultant of two or more velocities.

Two railway engines A and B are moving on lines which intersect at right angles, with velocities of 30 and 40 miles per hour respectively; when A passes the crossing, B is 1200 yards away, and is moving towards it: find where A will be when B crosses.

2. Define *relative velocity*, and show how to determine the relative velocity of two points which are moving in given straight lines with given velocities.

Two persons start simultaneously from the angle A of a grass plot ABC in the form of an equilateral triangle to walk round it in opposite directions with equal velocities; prove that, at the moment when they pass the angles B and C, the relative velocity is doubled in magnitude and reversed in direction.

3. A body moves from rest with uniform acceleration f; prove the formula connecting the velocity acquired and space described namely $v^2=2fs$.

A cannon ball is projected with a muzzle velocity of 1200 feet per sec., the length of the gun traversed by the shot being 10 feet, and the force exerted by the gas uniform, find the time of motion in the gun.

4. Explain why the velocity produced by a given force acting on a given body is proportional to the time of action.

What is the force in lbs. weight which acts on the ball in question 3, the mass of the ball being 50 lbs.?

5. What is the precise meaning of the symbol g in dynamics? Describe any way of determining its value.

Taking a pound to be equal to 450 grammes, a foot to be 30 centimetres and $g=32$ feet per second per second, how many dynes are there in the weight of a grain?

6. State the Third Law of Motion, and give an illustration of it.

A body moving with velocity u explodes into two parts, one of which is reduced by the explosion to rest while the other moves on with velocity $3u$, compare the masses of the two parts.

7. State the Second Law of Motion, and deduce the parallelogram of forces.

If two equal forces have a resultant R when acting at an angle A, and a resultant S when acting at an angle $180° - A$, prove that the forces are each equal to $\frac{1}{2}\sqrt{R^2+S^2}$.

8. Find the resultant of two similarly directed parallel forces in magnitude, direction, and position.

A force of 2 units acts through the angle A of a parallelogram $ABCD$, and an oppositely directed parallel force of 1 unit through the angle B, what parallel force must act through C, that the resultant may act at a point in AD?

9. If a body be maintained in equilibrium by 3 forces in one plane, prove that their directions must pass through a point.

A uniform sphere of weight W and radius r rests against a smooth vertical wall being supported by a string of length r attached to a point on the sphere and to a point on the wall, prove that the tension in the string is $\frac{2W}{\sqrt{3}}$.

10. When is a balance untrue? How can an untrue balance be used to find the true weight?

A body appears to weigh 20 grms. when placed in one scalepan of a balance, and 21 grms. when placed in the other, what is the true weight of a body which appears to weigh 10 grms. when placed in the first scalepan?

11. State the laws of friction.

If a body weighing 10 lbs. rest on a rough plane inclined

at 30° to the horizon; show that if the coefficient of friction be $\frac{1}{\sqrt{3}}$, a force of 10 lbs. parallel to the plane will be required to drag the body up the plane.

12. State the hydrostatical principles employed in the construction of Bramah's Press.

Upon what does the mechanical advantage of the press depend?

13. A vessel of any shape containing water has a horizontal base, find an expression for the total pressure on the base.

A hydrostatic bellows has a vertical tube inserted through the top, and water is poured into it; if the water stand 2 feet in the tube when a man whose weight is 150 lbs. is supported on the top of the bellows, what is the size of the latter?

[A cubic foot of water weighs 1000 ounces.]

14. How could the specific gravity of treacle be found?

Explain the advantage of the particular method adopted.

15. Describe any form of barometer, stating the purpose for which the instrument is used.

An air bubble has got into the top of a siphon barometer, which makes the difference of level 30·4, when a true barometer reads 30·5, the space occupied by the air being then 1 inch of the tube; what will be the true reading when the air occupies 1·5 inches, both limbs of the tube having the same section?

Additional Examination Papers for First Year Open Bursaries in Arts.

ENGLISH.

FRIDAY, *24th September* 1897.—9 *to* 12 NOON.

(1 *and* 9 *must be attempted by all. It will be better not to attempt more than* FIVE *of the others.*)

1. Write an Essay on *one* of the following subjects (not more than three-quarters of an hour should be devoted to this):—

(1) Historical Novels.

(2) The change of taste in poetry towards the end of the eighteenth century.

(3) The songs of Burns.

2. Give a brief account of *one* of the following books:—*The House of Fame*, *The Faërie Queene* (any *one* book of it), *Much Ado About Nothing*, Bacon's *Essays*, *Samson Agonistes*, the *Essay on Man*, *Roderick Random*, *Childe Harold*.

3. State briefly what you know of the life and writings of any *two* of the following:—Gower, Gavin Douglas, Surrey, George Buchanan, Sir Thomas Browne, Prior, Richardson, Miss Burney, Crabbe, Keats.

4. What is meant by: *alliterative metre*, *the Unities*, *Shakespearean and Petrarchian sonnet-form*, *the* Christabel *metre*, *refrain*, *chorus*, *dumb show*?

5. Give a brief account of the story of Cædmon and of the works attributed to him.

6. What are the chief books in Middle English before Chaucer?

7. Give the names of the chief Elizabethan dramatists, with the titles of one or two of the most famous works of each.

8. Mention, with a few particulars of each, the chief historical writers in English from 1600 to 1800.

9. Turn into modern English as closely as possible :—

(*a*) Meodoheall moniȝ, *man*dreama full,
oþ þæt þæt onwende wyrd seo swiþe.

(*b*) Se hwæl bið micle læssa þonne oðre hwælas: ne bið he lengra þonne syfan elne lang.

(*c*) ȝe, mine leoue sustren, ne schulen habben no best, bute kat one.

(*d*) þe grennes lastand euer and ay
Bitakins ending of þat may.

(*e*) And riche renkes right so gaderen and sparen.

(*f*) Enaunter his rage mought cooled be.

LATIN.

SATURDAY, *2nd October* 1897.—9 *to* 10.30 A.M.

1. Translate into Latin Prose :—

In the ensuing spring Lucullus turned his march westward. He came in time to relieve his Armenian garrison, but found Pontus all but lost. His legate, Triarius, had been forced to give battle at Ziela by the clamour of his soldiers, and had lost the pick of his troops, in a defeat which led to the capture of the Roman camp. The pusillanimous refusal of Q. Marcius to send help from Cilicia, forced Lucullus to confront the enemy at the head of a mutinous soldiery. Instead of marching to meet the Armenians, the troops retreated into the province of Asia, and left Mithradates in undisturbed possession of Pontus. Thus the fruit of the many victories of Lucullus was wasted; all that his masterly generalship could secure was a safe retreat, glorious to the leader alone. Rome had undertaken to curb the license of the pirates, and to humble the pride of the monarchs of the East, and owing to the inadequacy of her

preparations, had met with defeats ignominious for a great nation.

2. Translate into English :—

Hic satus ad pacem ; hic castrensibus utilis armis :
naturae sequitur semina quisque suae.
at tua, Maecenas, vitae praecepta recepi,
cogor et exemplis te superare tuis.
cum tibi Romano dominas in honore secures
et liceat medio ponere iura foro,
vel tibi Medorum pugnaces ire per hastas
atque onerare tuam fixa per arma domum,
et tibi ad effectum vires det Caesar et omni
tempore tam faciles insinuentur opes,
parcis et in tenues humilem te colligis umbras ;
velorum plenos subtrahis ipse sinus.
crede mihi, magnos aequabunt ista Camillos
iudicia, et venies tu quoque in ora virum,
Caesaris et famae vestigia iuncta tenebis :
Maecenatis erunt vera tropaea fides.

GREEK.

SATURDAY, *2nd October* 1897.—10.30 *to* 12 *o'clock.*

I. Translate :—

οὐδ' ἄρ' ἔτ' Αἴαντι μεγαλήτορι ἤνδανε θυμῷ
ἑστάμεν ἔνθα περ ἄλλοι ἀφέστασαν νῆες Ἀχαιῶν·
ἀλλ' ὅ γε νηῶν ἴκρι' ἐπῴχετο μακρὰ βιβάσθων·
ὡς δ' ὅτ' ἀνὴρ ἵπποισι κελητίζειν εὖ εἰδὼς,
ὅς τ' ἐπεὶ ἐκ πολέων πίσυρας συναείρεται ἵππους,
σεύας ἐκ πεδίοιο μέγα προτὶ ἄστυ δίηται
λαοφόρον καθ' ὁδόν· πολέες τέ ἑ θηήσαντο
ἀνέρες ἠδὲ γυναῖκες· ὁ δ' ἔμπεδον ἀσφαλὲς αἰεὶ
θρώσκων ἄλλοτ' ἐπ' ἄλλον ἀμείβεται, οἱ δὲ πέτονται·

ὣς Αἴας ἐπὶ πολλὰ θοάων ἴκρια νηῶν
φοίτα μακρὰ βιβὰς, φωνὴ δέ οἱ αἰθέρ' ἵκανεν,
αἰεὶ δὲ σμερδνὸν βοάων Δαναοῖσι κέλευεν
νηυσί τε καὶ κλισίῃσιν ἀμυνέμεν. οὐδὲ μὲν Ἕκτωρ
μίμνεν ἐνὶ Τρώων ὁμάδῳ πύκα θωρηκτάων·
ἀλλ' ὣς τ' ὀρνίθων πετεηνῶν αἰετὸς αἴθων
ἔθνος ἐφορμᾶται ποταμὸν πάρα βοσκομενάων,
χηνῶν ἢ γεράνων ἢ κύκνων δουλιχοδείρων,
ὣς Ἕκτωρ ἴθυσε νεὸς κυανοπρῴροιο
ἀντίος αἴξας· τὸν δὲ Ζεὺς ὦσεν ὄπισθεν
χειρὶ μάλα μεγάλῃ, ὤτρυνε δὲ λαὸν ἅμ' αὐτῷ.

II. For Greek Prose :—

Even where affairs came not to such extremities (which they failed not to do almost in every city twice or thrice every century), property was rendered very precarious by the maxims of ancient government. Xenophon, in the banquet of Socrates, gives us a very natural unaffected description of the tyranny of the Athenian people. "In my poverty," says Charmides, "I am much more happy than ever I was while possessed of riches; as much as it is happier to be in security than in terrors, free than a slave, to receive than to pay court, to be trusted than suspected. Formerly I was obliged to caress every informer; some imposition was continually laid upon me; and it was never allowed me to travel or be absent from the city. At present, when I am poor, I look big and threaten others. The rich are afraid of me, and show me every kind of civility and respect; and I am become a kind of tyrant in the city."

MATHEMATICS.

SATURDAY, 2*nd October* 1897.—2 *to* 5 P.M.

1. Shew that in any triangle the sum of the squares on the

sides is double the square on the median together with the square on half the base.

Deduce an important locus theorem.

E is an internal point on the side AB of the triangle ABC. If $CE=z$, $BE=x$, $AE=y$, calculate z in terms of x, y and the sides a, b, c of the triangle; and shew that

$$(ab-cz)(ab+cz)=(a^2-cx)(b^2-cy).$$

2. Defining the power of a point with respect to a circle as the excess of the square of the distance of the point from the centre over the square of the radius, shew that the locus of points which are equipollent with respect to two given circles is a straight line (radical axis): and that this line is the locus of the centres of circles which cut the two given circles orthogonally.

If two circles be external to each other, shew that the point where the radical axis meets the line joining their centres is nearer the centre of the larger circle than the internal centre of similitude of the two circles.

3. Discuss the problem to construct a circle which shall touch two given straight lines and also a given circle.

If x and y be the radii of the circles inscribed in two supplementary sectors of a circle of radius r, shew that

$$r^2(r-2x)(r-2y)=x^2y^2.$$

4. If two similar figures be placed so that their homologous sides are parallel, shew that the lines joining homologous vertices are concurrent.

O is a fixed point. OPQ meets two fixed parallel straight lines X and Y in P and Q respectively. PR is equal to OP and perpendicular to OPQ; and QS, which is parallel to PR, meets OR in S: find the locus of S.

5. Shew that the internal and external bisectors of the vertical angle of a triangle divide the base in the ratio of the sides.

Given the ratio of the sides of a triangle, and also the position

and magnitude of the base, find the locus of its centroid (intersection of the medians).

6. Explain what is meant by "Inverting a Geometrical Figure."

Shew that, in general, a circle inverts into a circle; and point out the exception.

O, B, A are fixed points in order on a straight line; and BX is a straight line perpendicular to O, B, A. P is a movable point on BX, and Q is taken on OP, so that $OP \cdot PQ = AP^2$: shew that the locus of Q is a circle.

7. Prove that the cross-ratio (anharmonic ratio) of the four points in which a given pencil of four rays is cut by any transversal is constant.

O is a fixed point; and X and Y are fixed straight lines. If $OPQR$ be drawn cutting X and Y in P and Q respectively, and R be taken so that the cross-ratio $(OPQR)$ has a given value: find the locus of R.

8. Shew that the lines which join the middle points of opposite edges of a tetrahedron are concurrent.

Find the locus of the centres of spheres which touch (1) two given intersecting straight lines; (2) three given straight lines which meet in a point. Deduce a theorem regarding the intersection of planes.

9. Find expressions for the volume and the curved surface of a right circular cone in terms of its height and the radius of its base.

A wine-glass has the shape of a right circular cone whose vertical angle is right. It appears to be filled with liquor; but it contains a glass sphere of the same colour and refractive index as the liquid (which is therefore invisible). If this sphere just touch the surface of the liquor, shew that the glass contains a little less than three-fourths as much liquor as it appears to do.

10. Shew that
$(x+1)^n=x^n+{}_nC_1x^{n-1}+{}_nC_2x^{n-2}+\ \ldots\ +{}_nC_rx^{n-r}+\ \ldots\ +1$,
where ${}_{n+1}C_r={}_nC_r+{}_nC_{r-1}$: and deduce the expansion of $(x+1)^5$.

Find the coefficient of x^5 in the expansion of $(1+2x-x^2-2x^3)^4$.

11. If P and Q be functions of x and y, shew that the system $P=0$, $Q=0$ is equivalent to the system $lP+mQ=0$, $l'P+m'Q=0$, where l, m, l', m' are constants such that $lm'-l'm\neq 0$: and apply the theorem to the solution of the linear system $ax+by+c=0$, $a'x+b'y+c'=0$.

Solve

$$\left.\begin{aligned}&\sqrt{\{x+\sqrt{(x+a)}\}}+\sqrt{\{x-\sqrt{(x+a)}\}}=\sqrt{2}\sqrt[4]{(x+a)}\,;\\ &12(x-1)+12(y-1)=7(x-1)\,(y-1)\\ &6(x-1)+4(y-1)=3(x-1)\,(y-1)\end{aligned}\right\}\ ;$$

and carefully distinguish extraneous from actual solutions.

12. Shew that any rational function of $\sqrt{p}$ can be expressed in the form $A+B\sqrt{p}$, where A and B are rational (so far at least as $\sqrt{p}$ is concerned) : and state the corresponding theorem for any rational function of $\sqrt{p}$ and $\sqrt{q}$.

Shew that

$$\frac{1+(\sqrt{p}+\sqrt{q})/\sqrt{(p+q)}}{1-(\sqrt{p}+\sqrt{q})/\sqrt{(p+q)}}+\frac{1-(\sqrt{p}+\sqrt{q})/\sqrt{(p+q)}}{1+(\sqrt{p}+\sqrt{q})/\sqrt{(p+q)}}$$

can be expressed in the form $A+B\sqrt{(pq)}$, where A and B are rational ; and find A and B.

If $\sqrt[3]{a}+\sqrt[3]{b}=\sqrt[3]{c}$, shew that c is a root of $x^3-3(a+b)x^2+3\{(a+b)^2-9ab\}x-(a+b)^3=0$.

13. Shew that the function ax^2+bx+c has a maximum value if a be negative, and a minimum value if a be positive ; and trace the graphs corresponding to the two cases.

Trace roughly the graph of $(x-1)^2/(x^2+1)$: find the minimum value of the function ; and shew that it must have a finite maximum value.

14. Shew how to sum a geometric series whose first term and common ratio are given.

Find the sum to infinity of a geometric progression whose p^{th} term is P, and whose q^{th} term is Q, when $p>q$ and $Q<P$.

15. Assuming any necessary theorem regarding two integral functions of x which are prime to each other, prove that a proper algebraic rational fraction whose denominator is the product of two integral functions of x which are prime to each other, can be decomposed into the sum of two proper fractions which have these integral functions for denominators.

Decompose $(x^3+x+1)/(x^4+x^2+1)$ into the sum of two real proper fractions whose denominators are the real quadratic factors of x^4+x^2+1.

HIGHER GEOMETRY.

FOR WELSH MATHEMATICAL BURSARIES AND FOR KELLAND PRIZE.

MONDAY, *4th October* 1897.—9 *to* 12 *o'clock.*

Candidates are requested to note on their papers the Bursary or Bursaries for which they compete.

1. Shew how to divide a line in medial section.

C and C' are the points of medial section on a given line AB; $ADEC$ and $AD'E'C'$ squares described on AC and AC' respectively. Shew that the angle DBD' is a right angle if the squares are on opposite sides of the straight line, and that EAE' is a right angle if the squares are on the same side of the straight line.

All chords of a circle through a fixed point are cut in medial section. Find the curve formed by the points of section.

2. Construct a triangle being given the base, the vertical angle, and the perimeter.

A and B are fixed points on a circle, C any other point on it. CD bisects the angle ACB and is equal in length to half the sum of AC and CB. Shew that the locus of D is a circle.

3. Shew that the orthocentre, the centroid, and the circumcentre of a triangle are collinear.

Construct a triangle being given the positions of the orthocentre, the centroid, and a vertex.

In an isosceles triangle, in which the vertical angle is half of either base angle, the orthocentre is the circumcentre of the triangle formed by joining the circumcentre to the extremities of the base.

4. State and prove the theorem of Menelaus.

The six external and internal centres of similitude of three circles taken in pairs are such that four straight lines can be found on each of which three centres of similitude are situated.

Shew also that if D, E, F are the *internal* centres of similitude of three circles of radii r_1, r_2, r_3, whose centres are A, B, C, then the triangle DEF is equal to $2\triangle r_1 r_2 r_3/\Pi(r_2+r_3)$, where $\triangle$ is the area of the triangle ABC.

5. Carefully define the angle of intersection of two curves.

Shew that the tangents to two intersecting circles at the extremities of a double chord cut one another at the same angle as the two circles.

If two such tangents cut in R, roughly draw the tangent at R to the locus of R, as the double chord varies.

6. If P and Q be points on the line AB harmonically conjugate with respect to A and B, and C the middle point of AB; prove $CP.CQ=CB^2$.

P, Q, R, S are any four points on a line AB, and P', Q', R', S' their conjugates with respect to A and B; prove $(PQRS)=(P'Q'R'S')$.

7. Define two similar ranges. Find the envelope of the joins of corresponding points on two projective ranges, and determine the nature of the envelope when the two ranges are also similar.

Give the dual or reciprocal propositions.

8. If P be any point on a parabola whose vertex is A, and N

the projection of P on the axis, prove that PN is a mean proportional between AN and the latus rectum.

If PT be the tangent at P, meeting the axis at T, and TN and PN be respectively perpendicular and parallel to the axis, show that the locus of N, as P varies, is a parabola.

9. Give a definition of a conic section, and shew that a straight line cannot cut it in more than two points.

The focus of an ellipse is a point of trisection of its major axis whose length is $2a$, find the length of its minor axis.

10. Any focal chord PFP' of a conic of focus F meets the directrix in R. Prove that $(PFP'R)$ is a harmonic range.

P is any point on a central conic of focus F, PM the perpendicular from P on the directrix. Q is taken in PM such that PQ is equal to FP. Shew that the locus of Q is a conic whose centre is a vertex of the original conic. Give a linear construction for the tangent at Q to the second conic when the tangent at P to the original conic is known.

11. Shew that parallel plane sections of a pyramid are similar figures.

Prove that a regular tetrahedron may be cut in a plane section which is a square.

12. Prove that the number of regular polyhedra is limited, and indicate the varieties.

Two pyramids on congruent quadrilateral bases are placed base to base to form an irregular octohedron. The centroids of the faces of the octohedron are taken. Shew that they form the vertices of a parallelepiped whose volume is two-ninths of the volume of the octohedron.

FRENCH.

MONDAY, *4th October* 1897.—2 *to* 3.30 P.M.

I. Translate into English :—

(*a*) Chose singulière ! Mirabeau ne raisonnait jamais mieux

que dans l'emportement. L'irritation la plus violente, loin de disjoindre son éloquence dans les secousses qu'elle lui donnait, dégageait en lui une sorte de logique supérieure, et il trouvait des arguments dans la fureur comme un autre des métaphores. Soit qu'il fît rugir son sarcasme aux dents acérées sur le front pâle de Robespierre, ce redoutable inconnu qui, deux ans plus tard devait traiter les têtes comme Phocion les discours ; soit qu'il mâchât avec rage les dilemmes filandreux de l'abbé Maury et qu'il les recrachât au côté droit, tordus, déchirés, disloqués, dévorés à demi et tout couverts de l'écume de sa colère ; soit qu'il enfonçât les ongles de son syllogisme dans la phrase molle et flasque de l'avocat Target, il était grand et magnifique, et il avait une sorte de majesté formidable que ne dérangeaient pas ses bonds les plus effrénés. Nos pères nous l'ont dit, qui n'avait pas vu Mirabeau en colère n'avait pas vu Mirabeau. Dans la colère son génie faisait la roue et étalait toutes ses splendeurs. La colère allait bien à cet homme, comme la tempête à l'océan.

V. Hugo.

(*b*) On m'a invitée aujourd'hui à une séance au club des dames auteurs de Londres, et j'en ai une vive curiosité. Miss B. vient me prendre et nous traversons un Londres embrumé, presque froid, mais dont j'aime les fonds de rues vagues et lointains dans une buée jaune avec des demi-clartés d'où les passants, les voitures émergent peu à peu comme des épreuves successives et chaque fois mieux exactes : les monuments prennent un vague de rêve, les statues de reines découpent leurs mains armées du sceptre dans une brume dense que n'agite ni ne disperse la grandeur ou la majesté de leur geste. Nous entrons dans une vaste salle ; très gentiment on me présente, et me voilà tout de suite entourée d'interlocutrices très gênée par ma presque ignorance de leur langue. Elles y suppléent, les unes dans un français très étudié, les autres avec des demi-phrases toujours gracieuses et significatives.

Mme. Daudet.

II. Translate into French :—

A sudden noise is heard from the top of the mountain—it is an avalanche rushing down with a crash. The enormous mass, disturbing and overturning all the strata of air which it travels through whilst falling, gives birth to gusts of wind, the forerunners of a frightful crisis. Soon the storm breaks out; flashes of lightning, bursting forth with awful glare, succeed each other with startling rapidity; thunderclaps growling in all directions are repeated to infinity by the echoes of the valleys; the waters of the lake are wildly disturbed, they actually roar as they raise their foaming billows; the wind, now blowing madly, strews the earth with the débris of old pine-trees rolled from the top of the mountain. In an instant the whole district is flooded: the swollen brooks, tearing along with the fierceness of a torrent, carry everything before them, and the valley, a moment ago so smiling and so beautiful, offers to the dismayed eye nothing but a vast scene of desolation and ruin.

GERMAN.

MONDAY, *4th October* 1897.—3.30 *to* 5 P.M.

I. Translate into English :—

Dieſe Schwierigkeit wird durch einen andern Umſtand noch erhöht. Der Umfang deſſen, was in der Schriftſprache zur Darſtellung kommt, bedingt nämlich auch ſeinerſeits eine Ungleichheit in der Beteiligung verſchiedener Gebiete des Sprachſchatzes, und zwar kommt gerade der Teil des Wortvorrates ſeltener zu litterariſcher Verwendung, bei dem auch die örtlichen Verſchiedenheiten die größten ſind. Bei einer Gemeinſprache der Gebildeten ergiebt es ſich von ſelbſt, daß ein Gegenſtand um ſo weniger das Intereſſe der litterariſchen Darſtellung herausfordert, je näher er dem rein ſinnlichen Bedürfniſſe ſteht, je mehr er dem Kleinleben, dem Gebiete des Volkstümlichen zugehört; zumal bei einer ſo überidealiſtiſchen, dem

wirklichen Leben ferne stehenden Litteratur, wie es die deutsche im 17. und 18. Jahrhundert geworden ist. So giebt es denn eine ganze Reihe von Gegenständen, für die es der Schriftsprache an einer allgemein anerkannten Bezeichnung gebricht. Es fehlt uns an Benennungen für zahlreiche Pflanzen und Tiere, für Speisen, für Gerätschaften des Hauses und der Ackerbestellung und ebenso für viele Verrichtungen, die bei Zubereitung oder Handhabung solcher Gegenstände erforderlich sind. Ebensowenig hat die eigentliche Litteratur Sinn und Verständnis und demnach Sprachmaterial für die kleinen oder kleinlichen Gefühlsäußerungen des täglichen Lebens, die in Ausdrücken des Ärgers und der Gereiztheit, in Ausrufen des Schmerzes und der Freude, in tausend zärtlichen Schmeichelworten zur sinnlichen Erscheinung kommen.

BEHAGHEL.

II. Translate into German :—

(*a*) Here you touch upon an important point. Public opinion in England is adverse to our universal liability with regard to military service, and yet the severity of this system is transformed into a boon for the country. It subjects the entire male population to a salutary training in love of order, punctuality, and a certain correctness of action. Such habits are transferred to every other business, and pervade the entire public life of the nation, and it is therefore not easy to place any man in a public service who has not gone through this discipline.

(*b*) The thinking traveller who is inclined to observations, such as Goethe in his *Italian Journey* institutes on the beggars of Naples, is struck, in perambulating the modern capital of northern Germany, by nothing so much as by the almost entire absence of districts of the city occupied exclusively by the lower orders, and of the accompanying appearance of neglected masses living in rags, filth, and undisguised vice.

GAELIC.

FOR MACKINNON BURSARY.

MONDAY, *4th October* 1897.—9 *to* 12 *o'clock.*

1. Decline, singular and plural:—*An abhainn fhada; ordchlach.*

2. Translate into English:—

Bidh am bradan air linne,
'S cha bhi cion air na féidh;
Bidh gach eun air na crannaibh
Ann am barraibh nan geug;
Bidh an cruithneachd a' fàs dhuinn,
'S bidh an t-àl aig an spréidh:
Ma bhios againn ar slàinte
Cha bhi càs oirnn no éis.

3. Illustrate the meaning of the prefixes *an-* and *mi-*, and of the suffixes *-ag* and *-ach* in the formation of nouns and adjectives.

4. Translate into idiomatic Gaelic:—

Usually a bird of prey is well known; there is no mistaking him. His claws, his beak, his head, his wings, in fact his whole build, point to the fact that he subsists on live creatures; he is armed to catch them and slay them. Every bird knows a hawk and knows him from the start, and is on the lookout for him.

5. Give a brief account of any modern Gaelic author.

ENGLISH ESSAY.

FOR RITCHIE SCHOLARSHIPS.

MONDAY, 27*th September* 1897.—9 *to* 12 *o'clock.*

Write an Essay on *one* of the following subjects :—

1. India as known in Western Europe during classical times.

2. The various means by which Colonies and Independencies have been acquired and kept.

3. The most important pieces of English Literature dealing with Indian subjects.

Preliminary Examination Papers for Degrees in Medicine.

ENGLISH.

SATURDAY, 25*th September* 1897.—9 A.M. *to* 12 NOON.

EIGHT, *and not more than* EIGHT *questions are to be answered.* 1 *and* 2 *must be answered, with either* 3 *or* 4 *and either* 5 *or* 6. *The remaining* FOUR *may be any questions not already answered.*

1. Write an essay, from two to three pages long, on one of the following subjects :—

(*a*) The Utility of National Celebrations.

(*b*) Professionalism in Sport.

(*c*) The life and writings of any Victorian novelist or poet.

2. Paraphrase :—

> The power of armies is a visible thing,
> Formal, and circumscribed in time and space;
> But who the limits of that power shall trace
> Which a brave people into light can bring
> Or hide, at will,—for freedom combating
> By just revenge inflamed? No foot may chase,

No eye can follow, to a fatal place
That power, that spirit, whether on the wing
Like the strong wind, or sleeping like the wind
Within its awful caves.—From year to year
Springs this indigenous produce far and near;
No craft this subtle element can bind,
Rising like water from the soil to find
In every nook a lip that it may cheer.

3. Give some account of *four* of the following:—Dunstan; Alexander III.; Edward II.; the relations between England and Scotland in the time of James IV.; the Restoration of Catholicism under Mary Tudor; Sir Francis Drake; Ireland in Elizabeth's reign; the Regency of Murray.

4. Give some account of *four* of the following:—The Petition of Right; the Solemn League and Covenant; the siege of Londonderry; Marlborough's victories; the Conquest of Canada; the Peninsular War; the Abolition of Slavery; the Chartist Riots.

5. Where, and for what noted, are any *eight* of the following:—Toulon, Yarmouth, Malaga, Alloa, Carlisle, Belgrade, Madeira, Pretoria, Klondyke, Kingston, Bathurst, Agra?

6. Enumerate the counties on the East Coast of England *or* on the West Coast of Ireland in geographical order, with a very few particulars.

7. Rewrite, so as to correct and improve, the following sentences, giving reasons for any changes you may make:—

(*a*) No one ever ruined himself more foolishly, more persistently, or so causelessly as he.

(*b*) It is a belief at which we all smile in one another and justify in ourselves.

(*c*) To be a magistrate or a church elder are the objects of the Boer's earthly ambition.

(*d*) Increase of ease and fame have strengthened his inclination to accept things as they were.

8. Give a *general* analysis of the following passage, and parse the words in italics:—

Burn'd Marmion's swarthy cheek like fire,
And shook his *very* frame *for* ire,
And, "*This* to me!" he said,—
"An 'twere not for thy hoary beard,
Such hand as Marmion's had not spared
To cleave the Douglas' head."

9. Explain the following terms:—*Voice, mood, conjugation, inflection, case, tense, participle, apposition, intransitive verb.*

10. (*a*) Derive *nine* of the following words:—*pilgrim, municipal, classic, square, Wednesday, foreign, church, muscle, cousin, surgeon, companion, derivation.*

Or (*b*) Point out and give the force of the prefixes and the suffixes in *nine* of the following words:—*archbishopric, separate, remedy, biology, affable, apostle, discovery, redintegrate, administer, invention, bewilderment.*

11. Give the authors, the approximate dates, and brief particulars of any *three* of the following:—*Vision of Piers Plowman, As You Like It, Comus, Religio Laici, Pamela, The Vicar of Wakefield, Ivanhoe, Vanity Fair.*

12. State briefly the chief arguments usually advanced for and against Trade Unionism.

SATURDAY, *26th March* 1898.—9 A.M. *to* 12 NOON.

1. Write an essay, from two to three pages long, on *one* of the following subjects:—

(*a*) Conscription *versus* Voluntary Enlistment.
(*b*) The characteristics of your ideal friend.
(*c*) Your favourite poem.

2. Paraphrase :—

Fulness of life and power of feeling, ye
Are for the happy, for the souls at ease,
Who dwell on a firm basis of content!
But he, who has outlived his prosperous days—
But he, whose youth fell on a different world
From that on which his exiled age is thrown—
Whose mind was fed on other food, was train'd
By other rules than are in vogue to-day—
Whose habit of thought is fixed, who will not change,
But, in a world he loves not, must subsist
In ceaseless opposition, be the guard
Of his own breast, fetter'd to what he guards,
That the world win no mastery over him—
Who has no friend, no fellow left, not one :
Who has no minute's breathing-space allow'd
To nurse his dwindling faculty of joy—
Joy and the outward world must die to him
As they are dead to me.

3. Write brief notes on *four* of the following :—Battle of the Standard, Constitution of Clarendon, Magna Charta, The Crusades, Statute of Mortmain, Battle of Falkirk, Siege of Orleans, Wars of the Roses, Field of the Cloth of Gold, Dissolution of the Monasteries, Loss of Calais, Imprisonment of Mary Queen of Scots.

4. Give a brief account of *four* of the following :—Earl of Strafford, Marquis of Montrose, Admiral Blake, Algernon Sidney, Viscount Dundee, Duke of Marlborough, Lord Chatham, Charles James Fox, Duke of Wellington, Sir Robert Peel, Lord Clyde.

5. Where and for what noted are the following towns :—Greenock, Canterbury, Benares, Pekin, Pretoria, Sheffield,

Quebec, Limerick, Havana, Wolverhampton, Peshawar, Khartoum?

6. Give some account of Japan.

7. Rewrite, so as to correct or improve, the following sentences, giving reasons for any changes you make:—

(*a*) This is one of the most interesting books that has appeared on the subject.

(*b*) Neither of the children reach their home after their many wanderings.

(*c*) Passing along under cover of the hedge, there was a shout of delight when he suddenly appeared on the other side.

(*d*) The youth whom he told me has so successfully passed his examination is one of two brothers who wished to have gone to India.

8. Give a *general* analysis of the following passage, and parse the words in italics.

> But *when* begins
> The array for battle, and the trumpet blows,
> A king must *leave* the feast and lead the fight:
> And with its mortal foes,—
> Grim gathering hosts of sorrows and of sins,—
> *Each* human soul must close:
> And Fame her trumpet blew
> Before him: wrapped him in her purple state;
> And made him *mark* for all the shafts of Fate
> That *henceforth* round him flew.

9. Give the derivation of *eight* of the following words:—Charm, remedy, frailty, atmosphere, amphibious, abed, articulate, gossip, ghastly, frontal, masticate, health, intoxicate, kerchief, parish.

10. When does a subject consisting of two or more nouns (or noun-equivalents) take a single verb? Give examples.

11. Give a short account of one famous British work in each

of the following departments:—(*a*) comedy, (*b*) ode, (*c*) prose allegory, (*d*) satire in verse.

12. What is meant by the following:—Imperial Federation, Co-operative Production, Countervailing Duties, The Referendum, Home Rule all round?

LATIN—GREEK—MATHEMATICS.

The Papers in Latin, Greek, and Mathematics are the same as the Lower Standard Papers in these subjects for Degrees in Arts and Science.

FRENCH.

TUESDAY, 28*th September* 1897.—3 *to* 6 P.M.

I.

Translate into French:—

1. While these political, religious, and moral changes were taking place in England, the royal authority had been without difficulty re-established in every other part of the British islands. In Scotland, the restoration of the Stuarts had been hailed with delight; for it was regarded as the restoration of national independence. And true it was that the yoke which Cromwell had imposed was, in appearance, taken away; . . . yet was the independence of the little kingdom necessarily rather nominal than real: for as long as the King had England on his side, he had nothing to apprehend from disaffection in his other dominions. He was now in such a situation that he could renew the attempt, which had proved destructive to his father, without any danger of his father's fate. Charles the First had tried to force his own religion, by his regal power, on the Scots at a moment when both his religion and his regal power were unpopular in England; and he had not only failed, but had raised troubles which had ultimately cost him his crown and his head.—(MACAULAY).

2. (1) I could not help laughing at him.
(2) I have known this boy ever since he was born.
(3) Had you followed my advice, this would not have happened.
(4) Were you not looking for your brother? Here he is.
(5) What is the use of asking such questions?
(6) He had better keep quiet.
(7) Has he succeeded in getting a good position?
(8) I have delayed my journey for some time.
(9) Have you heard of them lately?
(10) This is by far the nearest way.

II.

Translate into English :—

1. Aussitôt que l'ordre de marcher en avant eut été donné, mon capitaine me regarda avec une attention qui m'obligea à passer deux ou trois fois la main sur ma jeune moustache d'un air aussi dégagé qu'il me fut possible. Au reste je n'avais pas peur, et la seule crainte que j'éprouvasse c'était que l'on ne s'imaginât que j'avais peur. Les boulets inoffensifs contribuèrent encore à me maintenir dans mon calme héroique. . . . Il paraît que les Russes s'aperçurent du peu d'effet de leurs boulets, car ils les remplacèrent par des obus, qui pouvaient plus facilement nous atteindre dans le creux où nous étions postés. Un assez gros éclat m'enleva mon shako et tua un homme auprès de moi. "Je vous fais mon compliment, me dit le capitaine, vous en voilà quitte pour la journée." Je remis fièrement mon shako. "C'est faire saluer les gens sans cérémonie," dis-je aussi gaîment que je pus. Cette mauvaise plaisanterie, vu la circonstance, parut excellente.

(MÉRIMÉE.)

2. Cromwell régna cinq ans. L'Angleterre sous lui ne fut agitée par aucune guerre civile; elle se fit respecter au dehors.

Il la gouverna avec rudesse mais sans violence; il la maintint en repos et ne persécuta ni les partis ni les croyances: de là l'admiration historique que l'Europe porte à son gouvernement; mais il ne fonda rien et pourtant il voulut fonder. Il essaya plus d'une fois d'organiser un gouvernement régulier et définitif: il échoua toutes les fois. Il voulut être roi, mais il ne put ou n'osa. Quant à l'opinion publique jamais il ne la gagna au point de pouvoir s'abandonner à elle.—(RÉMUSAT.)

III.—GRAMMAR.

1. Give the feminine of the following adjectives and nouns: —*Doux, Roux, Jaloux, Muet, Complet, Ras, Bas, Serviteur, Docteur, Héros, Compagnon, Traître.*

2. Parse (naming person, tense, mood, and giving infinitive) the following forms:—*Veuillez, Feignais, Bus, Sache, Dûtes, Vaut, Ailles, Meut.*

3. Give both participles of:—*Offrir, Plaire, Peindre, Joindre, Savoir, Devoir.*

4. Give the French for:—(*a*) I fear he will write; (*b*) He must write; (*c*) He ought to write; (*d*) Do you think he will write soon? (*e*) He ought to have written; (*f*) He might write if he had time; (*g*) He could write French when he was at school; (*h*) He could have written his letters before now if he had wished.

TUESDAY, 29*th March* 1898.—3 *to* 6 P.M.

I. Translate into French:—

1. During the reign of Louis the Fourteenth, an Italian chemist, named Poli, came to Paris, and having obtained an audience of the King, informed him that he had discovered a composition ten times more destructive than gunpowder. Louis was fond of chemistry, and ordered the Italian to prepare the composition, and to make the necessary experiments on a certain

day in his presence. It was done, and everything succeeded according to the wishes of Poli, who then observed to the King that it would give him a great superiority over his enemies. "It is true," said Louis, "and your invention is very ingenious; but mankind already possess sufficient means of destroying one another; you shall be handsomely rewarded for your trouble and ingenuity, but I charge you, for the honour of human nature, never to divulge your secret."

2. (*a*) Whose books are these? They are mine.
(*b*) Make yourself at home.
(*c*) I hear somebody coming.
(*d*) He does nothing but play.
(*e*) Your interests are at stake.

II. Grammar.

1. Give the adverb formed from each of the following: *ardent, présent, gentil, précis, mauvais, moindre.*

2. Translate the following sentences, using both *il y a* and *depuis* :—

He had been travelling for a month.
We have been here for two hours.
How long have you been here?

3. When are *personne* and *quelque chose* masculine and when are they feminine? Give illustrations.

4. Give the adverb, one noun, and one verb, formed from the following adjectives: *grand, juste, utile, franc.* Add the meaning of each word.

5. Give the past participles of :—*souffrir, boire, venir, mourir, pouvoir, rendre, jouir, devoir, faire, coudre, lire, dire.*

III. Translate into English :—

1. Le grand-oncle de mon aïeul avait fait voir, dès son enfance, une furieuse passion de voyager; mais, par une suite de

circonstances étrangères à cette histoire, il était arrivé à soixante ans sans être jamais allé plus loin que Montmartre.

Il est vraiment ridicule, se disait-il fréquemment, que l'homme du monde qui souhaite le plus de voyager soit justement celui qui a vu le moins de pays. Car je n'appelle point voir du pays, aller de mon domicile jusqu'aux moulins de Montmartre. Non ! autant dire que je suis un âne, car c'est un chemin que les ânes font tous les jours.—*O. Feuillet.*

2. Quoique j'eusse à peine alors neuf ans accomplis, je sentais déjà le plaisir d'être libre et maître de mes actions. J'étais sans argent et sans pain : n'importe, je n'avais point de leçons à étudier ni de thèmes à composer. Après avoir marché pendant deux heures, mes petites jambes commencèrent à refuser le service. Il fallut m'arrêter pour me reposer. Je m'assis au pied d'un arbre qui bordait le grand chemin ; là, pour m'amuser, je tirai ma grammaire, que j'avais dans ma poche, et la parcourus, puis, venant à me souvenir des coups de fouet qu'elle m'avait fait recevoir, j'en dèchirai les feuillets avec colère.—*Le Sage.*

GERMAN.

WEDNESDAY, 29*th September* 1897.—3 *to* 6 P.M.

I.

Translate into German :—

1. "Boys," said the teacher, "what I have to say will astonish, and I am sure, shock you all, as it has me. You remember the examinations last month ? but I need not ask, for they were, I know, of especial importance in your eyes because so much depended on their result. Well, an event occurred on the previous afternoon which greatly vexed me, but I did not mention it to you at the time, because I did not wish to raise an unpleasant feeling in the school, without being quite certain that I had good reason for my suspicions."

What could such a beginning mean? The boys looked uneasily at each other, for the teacher's face, as well as his words, showed there was something very unpleasant in store. All sorts of expectations flashed through their minds, and Dr. Kenrick himself saw uneasiness written on a good many faces, so that he gave up all hope of detecting the culprit.

CHALMERS.

2. (*a*) I hope you will do your duty.
(*b*) You would have acted in the same manner, had you been there.
(*c*) There is no royal road to knowledge!
(*d*) I was in a fix and did not know what to do.
(*e*) If you do not understand a question, ask that it be repeated.

II.

Translate into English:—

1. Der Menſch muß eine Herrſchaft über ſich ſelbſt ausüben können, ſonſt iſt er kein braver und ehrlicher Menſch, und was er für Recht erkennt, das muß er auch thun, aber nicht einmal, ſondern immer. Der ruſſiſche General Suwarow, den die Türken und Polen, die Italiener und Schweizer wohl kannten, hielt ein ſcharfes und ſtrenges Kommando. Aber was die Hauptſache war, er ſtellte ſich unter ſein eigenes Kommando, als wenn er ein gemeiner Soldat wäre, und ſehr oft mußten ihm ſeine Adjutanten dies und jenes in ſeinem eigenen Namen befehlen, was er dann genau befolgte. Einmal war er ſehr ärgerlich über einen Soldaten, der im Dienſt etwas verſehen hatte, und fing an, ihn zu prügeln. Da faßte ein Adjutant das Herz, dachte, er wolle dem General und dem Soldaten einen guten Dienſt erweiſen, eilte herbei und ſagte: „Der General Suwarow hat befohlen, man ſolle ſich nie vom Zorn übernehmen laſſen.“ Sogleich hielt Suwarow ein und ſagte: „Wenn der General es befohlen hat, ſo muß man gehorchen.“ — HEBEL.

2. Auf dieſer Erde ſchlägt keine erhabenere und ſeligere Stunde,

als die, wo ein Menſch ſich aufrichtet, erhoben von der Tugend, gehalten von der Liebe, und alle Gefahren verſchmäht, und einem Freunde zeigt, wie ſein Herz iſt. Dieſes Leben iſt etwas Köſtlicheres als Eitelkeit. Aber die vollendete Aufrichtigkeit iſt ein Bild der Tugend; der Menſch, in welchem Argwohn und Finſternis wohnt, iſt ſich einer ſolchen Tugend nie bewußt.

JEAN PAUL (abridged).

III. GRAMMAR.

1. Give the plurals of: Streit, Tod, Dank, Herz, Hausherr, Landmann.

2. Give the first person singular of the present and imperfect of: brennen, müſſen, hauen, entſtehen, handhaben, weiſſagen.

3. State three cases—with examples—where inversion of subject and verb takes place, and three cases—with examples—where the verb goes to the end of the sentence.

4. What is meant by the *ethical dative*? Give three examples.

5. The prefixes durch, über, unter, um, may be separable or inseparable. Show, by examples, when they are separable and when inseparable.

WEDNESDAY, 30*th March* 1898.—3 *to* 6 P.M.

I. Translate into English:—

(*a*) Anna war ſtets die erſte im Hauſe wach und weckte die Mägde. Während dieſe auf dem Herd das Feuer anzündeten, holte ſie Waſſer vom Brunnen. So geſchah's auch eines frühen Morgens in den erſten Tagen des Juni. Bereits fertig angezogen und ſauber wie immer, trat ſie mit ihrem Eimer aus dem Hauſe. Ueber den Häuſern ſchoſſen die erſten Schwalben pfeifend hin und her. Sperlinge tummelten ſich zwitſchernd auf der Gaſſe und aus der Ferne klang hell ein Hahnenruf. Der Brunnen befand ſich nur wenige Schritte vom Hauſe entfernt auf der andern Seite der Straße. Leicht ſchritt das junge Mädchen mit ihrem Gefäß über die Straße. Plötzlich

ſtand ſie wie feſtgebannt. Auf der unteren Stufe der Brunneneinfaſſung lag ein Menſch; der rechte Arm hing ſteif herunter, die Füße lagen auf der Straße, und von dieſen etwas entfernt ein Stock und ein zerdrückter Hut. Die Lage des Körpers war ſo, als ſei er in Folge eines tödlichen Schlages rückwärts zuſammengeſunken. Das Geſicht war leichenblaß, die Augen geſchloſſen. Schnell gefaßt, obwohl mit klopfendem Herzen, trat Anna näher heran.

R. Schweichel, *Der Bildſchnitzer vom Achensee.*

(*b*) Zur Gutenachtzeit, als ſich Alles entfernt hatte, ſaß Ilſe noch einmal auf ihrem Stuhl in der Wohnſtube, und als der Vater aufbrach, reichte ſie ihm den Leuchter. Der Vater ſetzte ihn wieder hin und ging auf und ab, ohne zu ſprechen. Endlich begann er: „Deine Stube bleibt für dich unverändert, und wenn du zu uns zurückkehrſt, ſollſt du alles ſo finden, wie du es verlaſſen haſt. Ich gebe dich hin mit Schmerzen in ein Leben, das uns beiden unbekannt iſt. Gute Nacht, mein braves Kind, des Himmels Segen ſei über dir! Gott behüte dir dein ehrliches Herz! Sei tapfer, Ilſe, das Leben iſt ſchwer.“ Er zog ſie an ſich, und ſie weinte ſtill an ſeinem Herzen.

G. Freytag.

II. Translate into German:—

(*Candidates may use either English or German script.*)

(*a*) When the doctor entered his room, he found a letter lying on the writing-table. He hastily opened and read it, for he had recognised the handwriting at once. It was from Mary L. She asked him to come as soon as possible, as her mother had been suddenly taken ill, and she was afraid that it might be something serious. The young man called the servant, and asked when the letter had come. A servant girl had brought it ten minutes or a quarter of an hour ago. He put a case containing several small bottles in his pocket, took his hat and stick, and left the house. It was a beautiful night; the stars twinkled brightly, and the moon was just showing itself in the eastern sky. Not a soul was to be seen on the road. When he stood

before the little house, he looked up for a moment to the only lighted window, before he knocked at the door. As he entered gently the bedroom, the girl, who was sitting by her mother's bed, blushed and looked at him with sad entreating eyes.

(*b*) 1. He could not write German when he stayed with us.
2. When did you visit my cousin? Last year.
3. At last I have got back the book.
4. I should like to travel through the whole of Germany.
5. He would have gone to Vienna if he had had sufficient money.

III. Grammar.

1. Give the German equivalents—in the nominative and genitive singular and nominative plural, with the definite article—of *any six* of the following words:—*village*, *forest*, *apple*, *pear*, *bride*, *chair*, *lion*, *bird*, *name*, *song*, *volume*, *branch*.

2. Give the third person singular and plural of the present and imperfect indicative of—nehmen, fahren, führen, biegen, bitten, beten.

3. Distinguish between—heilbar, heilſam; er wird beſtraft, er iſt beſtraft; beſuchen, verſuchen, unterſuchen, erſuchen; Antrag, Auftrag, Vortrag, Ertrag; die Worte, die Wörter.

4. Give the different meanings of the following nouns according to gender:—Erbe, Gift, Heide, Hut, Leiter, Band.

5. Give the past participles of—bringen, ſingen, vernehmen, entweichen, ausgehen, begehen, antworten, erfahren, geſchehen, gebrauchen, entſtehen, zerreißen.

Papers for Ordinary Degree of M.A.

I.—LANGUAGE AND LITERATURE.

LATIN.

FIRST PAPER.

TUESDAY, 29*th March* 1898.—9 *to* 11 *o'clock*.

I. Translate, with very brief notes:—

(*a*) 'Daphni, quid antiquos signorum suspicis ortus?
ecce! Dionaei processit Caesaris astrum;
astrum, quo segetes gauderent frugibus, et quo
duceret apricis in collibus uva colorem.
insere, Daphni, piros; carpent tua poma nepotes.'—
omnia fert aetas, animum quoque. saepe ego longos
cantando puerum memini me condere soles:
nunc oblita mihi tot carmina. vox quoque Moerim
jam fugit ipsa: lupi Moerim videre priores.
sed tamen ista satis referet tibi saepe Menalcas.

(*b*) Vos o! quibus integer aevi
sanguis, ait, solidaeque suo stant robore vires;
vos agitate fugam.
me si caelicolae voluissent ducere vitam,
has mihi servassent sedes. satis una superque
vidimus excidia et captae superavimus urbi.
sic o! sic positum affati discedite corpus.
ipse manu mortem inveniam. miserebitur hostis
exuviasque petet. facilis jactura sepulcri.
jam pridem invisus divis et inutilis annos
demoror, ex quo me divom pater atque hominum rex,
fulminis adflavit ventis et contigit igni.

II. Translate, with very brief notes :—

(*a*) Paullum severae Musa tragoediae
desit theatris : mox, ubi publicas
res ordinaris, grande munus
Cecropio repetes cothurno,
insigne maestis praesidium reis,
et consulenti, Pollio, curiae,
cui laurus aeternos honores
Dalmatico peperit triumpho.

(*b*) Te greges centum Siculaeque circum
mugiunt vaccae ; tibi tollit hinnitum
apta quadrigis equa ; te bis Afro
murice tinctae
vestiunt lanae : mihi parva rura et
spiritum Graiae tenuem Camenae
Parca non mendax dedit et malignum
spernere volgus.

Give the scansion of the first four lines of (*b*).

III. (*a*) Translate :—

Sed tamen, Servi, quam te securim putas iniecisse petitioni tuae, cum tu populum Romanum in eum metum adduxisti, ut pertimesceret ne consul Catilina fieret, dum tu accusationem comparares deposita atque abjecta petitione ? etenim te inquirere videbant, tristem ipsum, maestos amicos : observationes, testificationes, seductiones testium, secessionem subscriptorum aminadvertebant : quibus rebus cretae ipsae candidatorum obscuriores videri solent. Catilinam interea alacrem atque laetum, stipatum choro iuventutis, vallatum indicibus atque sicariis, inflatum cum spe militum, tum collegae mei, quemadmodum dicebat ipse, promissis, circumfluente colonorum Arretinorum et Faesulanorum exercitu : quam turbam dissimillimo ex genere distinguebant homines perculsi Sullani temporis calamitate.

Explain briefly the historical situation here alluded to.

(*b*) Translate and explain :—

Sacra interire illi noluerunt : horum ingenio senes ad coëmtiones faciendas interimendorum sacrorum causa reperti sunt.

(*c*) What is meant by—*advocatus, editicii iudices, ignominia, iustitium, res mancipi, municipium, praerogativa centuria, suffragator* ?

IV. Translate and explain, with reference to the context :—

Mox Salvium Cocceianum fratris filium, prima iuventa, trepidum et maerentem ultro solatus est, laudando pietatem eius, castigando formidinem : an Vitellium tam inmitis animi fore, ut pro incolumi tota domo ne hanc quidem sibi gratiam redderet ? mereri se festinato exitu clementiam victoris ; non enim ultima desperatione, sed poscente proelium exercitu, remisisse rei publicae novissimum casum. satis sibi nominis, satis posteris suis nobilitatis quaesitum. post Iulios Claudios Servios se primum in familiam novam imperium intulisse : proinde erecto animo capesseret vitam, neu patruum sibi Othonem fuisse aut oblivisceretur umquam aut nimium meminisset.

(*b*) Translate and explain :—

Apud civitatem cuncta interpretantem funesti ominis loco acceptum est, quod maximum pontificatum adeptus Vitellius de caerimoniis publicis XV kalendas Augustas edixisset, antiquitus infausto die Cremerensi Alliensique cladibus : adeo omnis humani divinique iuris expers, pari libertorum, amicorum socordia, velut inter temulentos agebat.

(*c*) Define *alares, procurator, praefectus Aegypti, Augustales, diplomata, tribuni militum.*

V. (*a*) Translate :—

Quintiliane, vagae moderator summe iuventae,
gloria Romanae, Quintiliane, togae,
vivere quod propero pauper nec inutilis annis,
da veniam : properat vivere nemo satis.

differat hoc patrios optat qui vincere census
atriaque immodicis artat imaginibus.
me focus et nigros non indignantia fumos
tecta iuvant et fons vivus et herba rudis.
sit mihi verna satur, sit non doctissima coniunx,
sit nox cum somno, sit sine lite dies.

(*b*) Translate with very brief notes:—

(i) Inde sacro veneranda petes Palatia clivo.
(ii) At mea Vipsanas spectant cenacula laurus.
(iii) Noluerit dici quam pila prima suam.
(iv) Natorumque dedit iura paterna trium.

VI. Answer any *two* of the following:—

1. What were *quaestiones perpetuae?* Describe the process of trial before the *quaestio perpetua de ambitu.*

2. What attempts at reform are associated with the names of Sulpicius, Drusus, Saturninus?

3. What new territory was added to Rome's empire between 146 and 60 B.C., and under what circumstances?

4. Write a short life of the younger Scipio.

5. Compare very briefly the powers held by Augustus, and the policy which he pursued, with those of Julius Caesar.

VII. Answer any *one* of the following:—

1. Relate in outline the story of the Aeneid, and indicate the various poetic and national elements which Virgil has combined in it.

2. Name as many of the friends of Horace as you can, and illustrate by quotation his feelings towards them.

3. What are the chief peculiarities of the style of Tacitus in regard to vocabulary, grammar, and structure of sentences?

4. Give a short account of *any two* of the following:—Plautus, Ennius, Sallust, Tibullus.

SECOND PAPER.

TUESDAY, 29*th March* 1898.—11.30 *to* 1.30 *o'clock.*

1. For Latin Prose :—

All men follow that which seems advantageous to themselves. Such as are bred under a good discipline, and see that all benefits, procured to their country by virtuous actions, redound to the honour and advantage of themselves, their children, friends, and relations, contract, from their infancy, a love to the public, and look upon the common concernments as their own. When they have learnt to be virtuous, and see that virtue is in esteem, they seek no other preferments than such as may be obtained that way; and no country ever wanted great numbers of excellent men, where this method was established. On the other side, when it is evident that the best are despised, hated, or marked out for destruction; all things calculated to the honour or advantage of one man, who is often the worst or governed by the worst—all application to virtuous actions will cease; and, no man caring to render himself or his children worthy of great employments, such as desire to have them will, by little intrigues, corruption, and flattery, endeavour to make way to them; by which means true merit in a short time comes to be abolished.

2. Translate into English :—

Est igitur humanitatis vestrae, magnum eorum civium numerum calamitate prohibere; sapientiae, videre multorum civium calamitatem a re publica seiunctam esse non posse. etenim illud primum parvi refert, nos amissa vectigalia postea victoria recuperare: neque enim iisdem redimendi facultas erit propter calamitatem, neque aliis voluntas, propter timorem. deinde, quod nos eadem Asia atque idem iste Mithridates initio belli Asiatici docuit, id quidem certe calamitate docti memoria retinere debemus: nam tum, quum in

Asia res magnas permulti amiserant, scimus Romae solutione impedita fidem concidisse. non enim possunt una in civitate multi rem atque fortunas amittere, ut non plures secum in eandem calamitatem trahant. a quo periculo prohibete rem publicam, et mihi credite, id quod ipsi videtis: haec fides atque haec ratio pecuniarum, quae Romae, quae in foro versatur, implicita est cum illis pecuniis Asiaticis et cohaeret; ruere illa non possunt, ut haec non eodem labefactata motu concidant. quare videte, num dubitandum vobis sit omni studio ad id bellum incumbere, in quo gloria nominis vestri, salus sociorum, vectigalia maxima, fortunae plurimorum civium cum re publica defendantur.

GREEK.

FIRST PAPER.

WEDNESDAY, 30*th March* 1898.—9 *to* 11 A.M.

I. (*a*) Translate, with notes on the words underlined:—

ἄλλον δ' ἐνθένδε χρυσὸν καὶ χαλκὸν ἐρυθρὸν
ἠδὲ γυναῖκας εὐζώνους πολιόν τε σίδηρον
ἄξομαι, ἄσσ' ἔλαχόν γε· γέρας δέ μοι, ὥς περ ἔδωκεν,
αὖτις ἐφυβρίζων ἕλετο κρείων Ἀγαμέμνων
Ἀτρείδης· τῷ πάντ' ἀγορευέμεν, ὡς ἐπιτέλλω,
ἀμφαδόν, ὄφρα καὶ ἄλλοι ἐπισκύζωνται Ἀχαιοί,
εἴ τινά που Δαναῶν ἔτι ἔλπεται ἐξαπατήσειν,
αἰὲν ἀναιδείην ἐπιειμένος· οὐδ' ἂν ἔμοιγε
τετλαίη κύνεός περ ἐὼν εἰς ὦπα ἰδέσθαι· (9)
οὐδέ τί οἱ βουλὰς συμφράσσομαι, οὐδὲ μὲν ἔργον· (10)
ἐκ γὰρ δή μ' ἀπάτησε καὶ ἤλιτεν· οὐδ' ἂν ἔτ' αὖτις
ἐξαπάφοιτ' ἐπέεσσιν· ἄλις δέ οἱ· ἀλλὰ ἔκηλος
ἐρρέτω· ἐκ γὰρ εὖ φρένας εἵλετο μητίετα Ζεύς.

Scan the lines (9) and (10) above, and remark on any peculiarities.

(*b*) Translate, with short notes on the syntax of moods or cases :—

(1) πάσσε δ' ἀλὸς θείοιο κρατευτάων ἐπαείρας.

(2) ταῦτ' αἰνῶς δείδοικα κατὰ φρένα, μή οἱ ἀπειλὰς
ἐκτελέσωσι θεοί, ἡμῖν δὲ δὴ αἴσιμον εἴη
φθίσθαι ἐνὶ Τροίῃ.

II. (*a*) Translate :—

εἰ δ' ἐμοῦ ταῦτα προϊσχομένου ἀδύνατοι μὲν φήσετε εἶναι, εὖνοι δ' ὄντες ἀξιώσετε μὴ κακούμενοι διωθεῖσθαι, καὶ τὴν ἐλευθερίαν μὴ ἀκίνδυνον ὑμῖν φαίνεσθαι, δίκαιόν τε εἶναι, οἷς καὶ δυνατὸν δέχεσθαι αὐτήν, τούτοις καὶ ἐπιφέρειν, ἄκοντα δὲ μηδένα προσαναγκάζειν, μάρτυρας μὲν θεοὺς καὶ ἥρωας τοὺς ἐγχωρίους ποιήσομαι ὡς ἐπ' ἀγαθῷ ἥκων οὐ πείθω, γῆν δὲ τὴν ὑμετέραν δῃῶν πειράσομαι βιάζεσθαι, καὶ οὐκ ἀδικεῖν ἔτι νομιῶ, προσεῖναι δέ τί μοι καὶ κατὰ δύο ἀνάγκας τὸ εὔλογον, τῶν μὲν Λακεδαιμονίων, ὅπως μὴ τῷ ὑμετέρῳ εὔνῳ, εἰ μὴ προσαχθήσεσθε, τοῖς ἀπὸ ὑμῶν χρήμασι φερομένοις παρ' Ἀθηναίους βλάπτωνται, οἱ δὲ Ἕλληνες ἵνα μὴ κωλύωνται ὑφ' ὑμῶν δουλείας ἀπαλλαγῆναι.

(*b*) Translate and explain with reference to the context :—

(1) καί τινος ἐρομένου ποτὲ ὕστερον τῶν Ἀθηναίων ξυμμάχων δι' ἀχθηδόνα ἕνα τῶν ἐκ τῆς νήσου αἰχμαλώτων εἰ οἱ τεθνεῶτες αὐτῶν καλοὶ κἀγαθοί, ἀπεκρίνατο αὐτῷ πολλοῦ ἂν ἄξιον εἶναι τὸν ἄτρακτον, λέγων τὸν οἰστόν, εἰ τοὺς ἀγαθοὺς διεγίγνωσκε, δήλωσιν ποιούμενος ὅτι ὁ ἐντυγχάνων τοῖς τε λίθοις καὶ τοξεύμασι διεφθείρετο.

(2) Ἀριστώνυμος δὲ τοῖς μὲν ἄλλοις κατῄνει. Σκιωναίους δὲ αἰσθόμενος ἐκ λογισμοῦ τῶν ἡμερῶν ὅτι ὕστερον ἀφεστήκοιεν, οὐκ ἔφη ἐνσπόνδους ἔσεισθαι. Βρασίδας δὲ ἀντέλεγε πολλά, ὡς πρότερον, καὶ οὐκ ἀφίει τὴν πόλιν.

III. (*a*) Translate, with notes on the words underlined :—

ΠΕΙ. τί δαὶ ποιήσεις ; ΣΥΚ. τὸ γένος οὐ καταισχυνῶ.
παππῷος ὁ βίος συκοφαντεῖν ἐστί μοι.
ἀλλὰ πτέρου με ταχέσι καὶ κούφοις πτεροῖς
ἱέρακος, ἢ κερχνῇδος, ὡς ἂν τοὺς ξένους

καλεσάμενος, κᾆτ' ἐγκεκληκὼς ἐνθαδί,
κατ' αὖ πέτωμαι πάλιν ἐκεῖσε. ΠΕΙ. μανθάνω.
ὧδὶ λέγεις· ὅπως ἂν ὠφλήκῃ δίκην
ἐνθάδε πρὶν ἥκειν ὁ ξένος. ΣΥΚ. πάνυ μανθάνεις.
ΠΕΙ. κἄπειθ' ὁ μὲν πλεῖ δεῦρο, σὺ δ' ἐκεῖσ' αὖ πέτει
ἁρπασόμενος τὰ χρήμοτ' αὐτοῦ. ΣΥΚ. πάντ' ἔχεις.
βέμβικος οὐδὲν διαφέρειν δεῖ. ΠΕΙ. μανθάνω
βέμβικα· καὶ μὴν ἔστι μοι νὴ τὸν Δία
κάλλιστα Κορκυραῖα τοιαυτὶ πτερά.

(*b*) Translate, with short notes on the syntax, meaning, or allusion :—

(1) ΕΠ. μῶν ἡλιαστά; ΕΥΕ. μᾶλλὰ θατέρου τρόπου.

(2) ΧΟΡ. ὄμνυμ' ἐπὶ τούτοις, πᾶσι νικᾶν τοῖς κριταῖς
καὶ τοῖς θεαταῖς πᾶσιν. ΠΕΙ. ἔσται ταυταγί.
ΧΟΡ. εἰ δὲ παραβαίην, ἑνὶ κριτῇ νικᾶν μόνον.

Scan the line ὄμνυμ' . . . κριταῖς, and show in what respects it would be inadmissible in tragedy.

(3) φυσάτω πάππους παρ' ἡμῖν, καὶ φανοῦνται φράτορες.

IV. Translate, with notes on the words underlined :—

(*a*) ΣΩ. Τραγικὴ γάρ ἐστιν, ὦ Μένων, ἡ ἀπόκρισις, ὥστε ἀρέσκει σοι μᾶλλον ἢ ἧ περὶ τοῦ σχήματος.

ΜΕΝ. Ἔμοιγε.

ΣΩ. Ἀλλ' οὐκ ἔστιν, ὦ παῖ Ἀλεξιδήμου, ὡς ἐγὼ ἐμαυτὸν πείθω, ἀλλ' ἐκείνη βελτίων· οἶμαι δὲ οὐδ' ἂν σοὶ δόξαι, εἰ μή, ὥσπερ χθὲς ἔλεγες, ἀναγκαῖόν σοι ἀπιέναι πρὸ τῶν μυστηρίων, ἀλλ' εἰ περιμείναις τε καὶ μυηθείης.

ΜΕΝ. Ἀλλὰ περιμένοιμ' ἄν, ὦ Σώκρατες, εἴ μοι πολλὰ τοιαῦτα λέγοις.

ΣΩ. Ἀλλὰ μὴν προθυμίας γε οὐδὲν ἀπολείψω, καὶ σοῦ ἕνεκα καὶ ἐμαυτοῦ, λέγων τοιαῦτα· ἀλλ' ὅπως μὴ οὐχ οἷός τ' ἔσομαι πολλὰ τοιαῦτα λέγειν. ἀλλ' ἴθι δὴ πειρῶ καὶ σὺ ἐμοὶ τὴν ὑπόσχεσιν ἀποδοῦναι, κατὰ ὅλον εἰπὼν ἀρετῆς πέρι, ὅ τι ἔστι, καὶ παῦσαι

πολλὰ ποιῶν ἐκ τοῦ ἑνός, ὅπερ φασὶ τοὺς συντρίβοντάς τι ἑκάστοτε οἱ σκώπτοντες.

(*b*) Translate, with notes on the syntax :—

ΣΩ. Οὐκοῦν τοὐναντίον αὖ, οὓς μήτε διδάσκαλοι μήτε μαθηταὶ εἶεν, καλῶς ἂν αὐτὸ εἰκάζοντες εἰκάζοιμεν μὴ διδακτὸν εἶναι ;

ΜΕΝ. Ἔστι ταῦτα· ἀλλ' ἀρετῆς διδάσκαλοι οὐ δοκοῦσί σοι εἶναι ;

ΣΩ. Πολλάκις γοῦν ζητῶν, εἴ τινες εἶεν αὐτῆς διδάσκαλοι, πάντα ποιῶν οὐ δύναμαι εὑρεῖν.

V. Answer any *two* of the following :—

1. Give some account of the "Thrace-ward" possessions of Athens.
2. What forms of international law were observed between Greek States ?
3. What do you know of Phormio, Perdiccas, Gylippus, Antiphon ?

VI. Answer any *one* of the following :—

1. Notice any points of interest in (1) the Homeric use of Similes, (2) the Homeric picture of the Family.
2. What is meant by Prologus, Parabasis, Epirrhema, Choregus ?
3. What does Thucydides tell of himself, and how far may personal feeling have warped his judgment ?
4. What successive definitions of Virtue are put forward and rejected in the *Meno* ?

SECOND PAPER.

WEDNESDAY, 30*th March* 1898.—11.30 A.M. *to* 1 30 P.M.

1. For Greek Prose :—

When Raphael had thus made an end of speaking, though many things occurred to me, both concerning the manners and laws of that people, that seemed very absurd ; as well in their

way of making war as in their notions of religion and divine matters; together with several other particulars, but chiefly what seemed the foundation of the rest, their living in common without the use of money; yet since I perceived that Raphael was weary, and was not sure whether he could easily bear contradiction; I only commended their constitution and the account he had given of it in general; and so taking him by the hand carried him to supper, and told him I would find out some other time for examining the subject more particularly. In the meanwhile, though it must be confessed that he is both a very learned man, and a person who has obtained a great knowledge of the world, I cannot perfectly agree to everything he has related.

More.

2. For Unseen Translation :—

ἀλλ' ἐκεῖνο θαυμάζω, εἰ Λακεδαιμονίοις μέν ποτε, ὦ ἄνδρες Ἀθηναῖοι, ὑπὲρ τῶν Ἑλληνικῶν δικαίων ἀντήρατε, καὶ πολλὰ ἰδίᾳ πλεονεκτῆσαι πολλάκις ὑμῖν ἐξὸν οὐκ ἠθελήσατε, ἀλλ' ἵν' οἱ ἄλλοι τύχωσι τῶν δικαίων, τὰ ὑμέτερ' αὐτῶν ἀνηλίσκετε εἰσφέροντες καὶ προεκινδυνεύετε στρατευόμενοι, νυνὶ δ' ὀκνεῖτε ἐξιέναι καὶ μέλλετε εἰσφέρειν ὑπὲρ τῶν ὑμετέρων αὐτῶν κτημάτων, καὶ τοὺς μὲν ἄλλους σεσώκατε πολλάκις πάντας καὶ καθ' ἕνα αὐτῶν ἕκαστον ἐν μέρει, τὰ δ' ὑμέτερ' αὐτῶν ἀπολωλεκότες κάθησθε. ταῦτα θαυμάζω, καὶ ἔτι πρὸς τούτοις, εἰ μηδὲ εἷς ὑμῶν, ὦ ἄνδρες Ἀθηναῖοι, δύναται λογίσασθαι πόσον πολεμεῖτε χρόνον Φιλίππῳ καὶ τί ποιούντων ὑμῶν ὁ χρόνος διελήλυθεν οὗτος. ὥστε γὰρ δήπου τοῦθ', ὅτι μελλόντων αὐτῶν, ἑτέρους τινὰς ἐλπιζόντων πράξειν, αἰτιωμένων ἀλλήλους, κρινόντων, πάλιν ἐλπιζόντων, σχεδὸν ταὐτὰ ἅπερ νυνὶ ποιούντων ἅπας ὁ χρόνος διελήλυθεν. εἶθ' οὕτως ἀγνωμόνως ἔχετε, ὦ ἄνδρες Ἀθηναῖοι, ὥστε δι' ὧν ἐκ χρηστῶν φαῦλα τὰ πράγματα τῆς πόλεως γέγονε, διὰ τούτων ἐλπίζετε τῶν αὐτῶν πράξεων ἐκ φαύλων αὐτὰ χρηστὰ γενήσεσθαι; ἀλλ' οὔτ' εἴλογον οὔτ' ἔχον ἐστὶ φύσιν τοῦτό γε· πολὺ γὰρ ῥᾷον ἔχοντας φυλάττειν ἢ κτήσασθαι πάντα πέφυκεν.

νῦν δὲ ὅ τι μὲν φυλάξομεν, οὐδέν ἐστιν ὑπὸ τοῦ πολέμου λοιπὸν τῶν πρότερον, κτήσασθαι δὲ δεῖ.

DEMOSTHENES, *Olynthiac* II. §§ 24-26.

RHETORIC AND ENGLISH LITERATURE.

FIRST PAPER.

MONDAY, 28*th March* 1898.—9 *to* 11 *o'clock.*

1. Write an Essay on *one* of the following subjects:—

(*a*) Claudius.

(*b*) The greatest English Elegies.

(*c*) The Fairy World in the *Midsummer Night's Dream.*

2. Give Morris's periods of the English language, and note in the Fourth Period forms now obsolete.

3. Name the more important writers, ancient and modern, whose theories have influenced the application of the term Rhetoric.

4. Trace the variation of Prose Style from Hooker to De Quincey.

5. Give some account of Old English poetry previous to Alfred.

6. Write notes as to the work, period, and style of *four* of the following:—John Gower, Sir David Lyndsay, Robert Greene, Edmund Waller, Andrew Marvell, Sir William Temple, Tom D'Urfey, Matthew Prior, David Mallet, William Falconer.

7. Annotate *fifteen* of the following:—the Nine Men's Morris—Bergomask—a part to tear a cat in—the perfume and suppliance of a minute—the swaggering upspring—eyases—a document in madness—Colpons—Averrois—maunciple—Pawnee—Algrind—biggen—buskets—the great vision of the guarded mount—Lilly—blind mouths—Cebes—Kicshoes—the last conclamation—incremable flax—the metropolis of humidity—

irrational ferity — Archimime — Corah — the Sagan — foolish Ishbosheth—that unfeathered two-legged thing—the Solymaean rout—the Bassa—Luke's iron crown—disks and tiars—her who clasped in her last trance her murdered father's head—the field of Enna.

SECOND PAPER.

MONDAY 28*th March* 1898.—11.30 *to* 1.30 *o'clock.*

N.B.—Not more than EIGHT *questions to be attempted.*

1. Where do you place the *Midsummer Night's Dream* in the order of Shakespeare's work? On what grounds?

2. Discuss Shakespeare's use of the supernatural in *Hamlet.*

3. Select *five* of the more important characters among the Canterbury pilgrims, and note, in the description of each, the most distinguishing lines.

4. Note in the *Shepherd's Calendar* such eclogues as seem to you to show more fully Spenser's general poetic power and skill in allegorical handling.

5. Write a study of the "uncertain Rhymes" of *Lycidas* and its classical echoes.

6. What are the special characteristics of Milton's Prose Style as revealed in the *Tractate on Education.*

7. Illustrate from *Hydriotaphia* the "notes" of Sir Thomas Browne in style and language.

8. What are the qualities specially distinguishing Dryden's work as a satirist? Illustrate from *Absalom and Achitophel.*

9. Write a study of *Rasselas* as revealing Johnson and the age he lived in.

10. Select from *The Traveller* the more felicitous passages in which Goldsmith characterises the nations he describes.

11. Write a study of the metre of *Christabel* and its influence.

12. Illustrate from the Selections Tennyson's characteristics of poetical representation and of phrase.

FRENCH.

FIRST PAPER.

SATURDAY, 2*nd April* 1898.—9 *to* 11 A.M.

I. Translate into English:—

(*a*) Je n'ai point de colère, et cela vous étonne.
Votre tonnerre tousse et vous croyez qu'il tonne;
Grondants, vous essoufflez sur moi votre aquilon;
Votre petit éclair me pique le talon;
Je n'ai pas l'air de voir la peine qu'il se donne;
Vous sentez quelque chose en moi qui vous pardonne,
Cela vous froisse. Au fait, on est trop châtié
De vouloir faire mal et de faire pitié.
Quoi! s'unir contre un homme, en tenter l'escalade,
Et n'avoir même pas l'honneur d'une ruade!
Ne pas recevoir même un soufflet; c'est blessant.
Le proscrit parfois tombe et jamais ne descend;
Il laisse autour de lui grincer la haine infâme,
Ce n'est pas pour cela qu'il dérange son âme.
Donc soyez furieux. Serai-je irrité? Non,
Je doute que j'en vienne à savoir votre nom.
Les vieux bannis pensifs sont une race inculte;
Avant de nous fâcher parce qu'on nous insulte,
C'est notre usage à nous qui sommes exigeants
De regarder un peu la stature des gens.

(*b*) Je ne t'en parle plus, va, sers la tyrannie;
Abandonne ton âme à son lâche génie;
Et, pour rendre le calme à ton esprit flottant,
Oublie et ta naissance et le prix qui t'attend.
Sans emprunter ta main pour servir ma colère
Je saurais bien venger mon pays et mon père.
J'aurais déjà l'honneur d'un si fameux trépas,
Si l'amour jusqu'ici n'eût arrêté mon bras;

C'est lui qui, sous tes lois me tenant asservie,
M'a fait en ta faveur prendre soin de ma vie.
Seule contre un tyran, en le faisant périr,
Par les mains de sa garde il me fallait mourir ;
Je t'eusse par ma mort dérobé ta captive ;
Et comme pour toi seul l'amour veut que je vive,
J'ai voulu, mais en vain, me conserver pour toi,
Et te donner moyen d'être digne de moi.

(*c*) Ce roman vrai de père emprisonné, et ces caresses hasardeuses confiées au papier, et ces baisers paternels jetés à travers les grilles, tout cela a quelque chose de bizarre, de fou, et d'attendrissant, et de naïf, et de délicieusement suranné comme une vieille romance : et tout cela est pénétrant, parce qu' encore c'est cependant vrai, contre tout apparence, et je ne sais rien de plus captivant ni de plus cruellement doux ;—et ce sont enfin, l'enfant mort, le tumulte des sens apaisé par le temps, des lettres tendrement amicales, confiantes et apaisées, avec des longueries et des traîneries de bavardage, et des anecdotes gaies, et des épanchements familiers, sans plus rien ni de lyrique ni d'oratoire, causeries prolongées de vieux amis, éprouvés, et resserrés, et mêlés l'un à l'autre par les épreuves. Mais ce sont surtout des lettres d'homme romanesque, hasardeux, fiévreux, amoureux de situation hors du commun et du normal, et qui n'a été si fidèle, cette fois, que d'abord, si l'on veut, parce qu'il était en prison, ensuite parce qu'il était excité, et renfoncé dans son sentiment par l'opposition qu'on y faisait et dans sa volonté par l'obstacle, et dans son amour par les haines qu'il lui valait, et exalté et enivré par le froissement rude, sur sa poitrine, des vents contraires.

(*d*) Fougueux et romanesque, il l'est à faire douter de ses aventures. Soldat, grand seigneur, manière de diplomate obscur et équivoque, joueur, prodigue, homme de galanteries effrénées et peut-être monstrueuses, embastillé, vivant de sa

plume en Hollande, emprisonné de nouveau et trompant ses ennuis par une fureur d'études incroyable, et des épanchements de passion souvent exquis ; puis, tout à coup, se dressant, éclatant en pleine lumière de popularité et de gloire, tribun redoutable, agitateur de foules ; puis arbitre et comme prince de la révolution, roi de l'opinion, traitant de puissance à puissance d'un côté avec le roi, et de l'autre avec le peuple, il a eu une courte existence qu'on s'étonne qui ait pu être si longue, tant elle est surchargée, agitée, brisée, secouée de tempêtes, et retentissante d'un continuel redoublement d'orages.

(*e*) Il est guindé sans cesse ; et dans tous ses propos,
On voit qu'il se travaille à dire de bons mots.
Depuis que dans sa tête il s'est mis d'être habile,
Rien ne touche son goût, tant il est difficile !
Il veut voir des défauts à tout ce qu'on écrit,
Et pense que louer n'est pas d'un bel esprit,
Que c'est être savant que trouver à redire,
Qu'il n'appartient qu'aux sots d'admirer et de rire ;
Et qu'en n'approuvant rien des ouvrages du temps,
Il se met au-dessus de tous les autres gens.
Aux conversations même il trouve à reprendre :
Ce sont propos trop bas pour y daigner descendre :
Et, les deux bras croisés, du haut de son esprit,
Il regarde en pitié tout ce que chacun dit.

(*f*) Et ne faut-il pas bien que Monsieur contredise ?
A la commune voix veut-on qu'il se réduise,
Et qu'il ne fasse pas éclater en tous lieux
L'esprit contrariant qu'il a reçu des cieux ?
Le sentiment d'autrui n'est jamais pour lui plaire.
Il prend toujours en main l'opinion contraire,
Et penserait paraître un homme du commun,
Si l'on voyait qu'il fût de l'avis de quelqu'un.

II. Translate the following passages from *Le Misanthrope*, and write short critical or explanatory notes where necessary.

(*a*) Mais, quoi qu'à chaque pas je puisse voir paraître,
En courroux, comme vous, on ne me voit point être.

(*b*) L'estime où je vous tiens ne doit pas vous surprendre,
Et de tout l'univers vous la pouvez prétendre.

(*c*) J'aurais lieu de plainte
Si, m'adressant à vous, pour me parler sans feinte,
Vous alliez me trahir, et me déguiser rien.

(*d*) Mais au moins dites-moi, Madame, par quel sort
Votre Clitandre a l'heur de vous plaire si fort.

(*e*) Je n'en démordrai point, les vers sont exécrables.

III. (*a*) What part did Voltaire and Montesquieu, Diderot, and Rousseau play in the history of French thought in the eighteenth century?

(*b*) Draw a parallel between Corneille and Racine.

(*c*) Illustrate by a diagram the fluctuation of the principle of authority and the principle of liberty in France since the beginning of the eighteenth century.

(*d*) Estimate the relative influences of the Renaissance and of the Reformation on French literature.

SECOND PAPER.

SATURDAY, *2nd April* 1898.—11.30 A.M. *to* 1.30 P.M.

I. Translate into French :—

(*a*) By his skill in astronomy he knew that there was shortly to be an eclipse of the moon. He assembled all the principal persons of the district around him on the day before it happened, and, after reproaching them for their fickleness in withdrawing their affection and assistance from men whom they had lately revered, he told them that the Spaniards were servants of

the Great Spirit who dwells in heaven, who made and governs the world; that he, offended at their refusing to support men who were the objects of his peculiar favour, was preparing to punish this crime with signal severity, and that very night the moon should withhold her light, and appear of a bloody hue, as a sign of the divine wrath and of the vengeance ready to fall upon them. ROBERTSON: *America.*

(*b*) We are not to forget that a play is, or ought to be, a very short composition: that if one passion or disposition is to be wrought up with tolerable success, I believe it is as much as in reason can be expected. If there be scenes of distress and scenes of humour, there must either be a single or a double plot. If there be a double plot, there must in fact be two. If they be in chequered scenes of serious and comic, you are obliged continually to break the thread of the story and the continuity of the passions; if in the same scene, it is needless to observe how absurd the mixture must be, and how little adapted to answer the genuine end of any passion. It is odd to observe the progress of bad taste,—for this mixed passion being universally proscribed in the regions of Tragedy, it has taken shelter and refuge in Comedy, where it seems firmly established; though no reason can be assigned why we may not laugh in the one, as well as cry in the other. The true reason of this mixture is to be sought in the manners which are prevalent among a people. It has become very fashionable to affect delicacy, tenderness of heart, and fine feeling, and to shun all imputation of rusticity. Much mirth is very foreign to this character: they have introduced, therefore, a neutral style of writing.—*Spectator.*

II. Translate into English:—

Halt sont li pui e li val tenebros,
Les roches bises, li destreit merveillos.
Lo jorn passerent Franceis a grant dolor:

De quinze lieues en ot om la rumor.
Puis qued il vienent a la terre maior,
Vidrent Guascoigne la terre lor seignor,
Donc lor remembret des fiez e des onors,
E des pulceles e des gentilz oissors:
Cel n'en i at qui de pitiét ne plort.
Sour toz les altres est Charles angoissos:
As porz d'Espaigne at laissiét son nevot,
Pitiét luin prent, ne puet muder ne plort.
Li doze per sont remés en Espaigne;
Vint milie Frans ont en la lor compaigne;
Nen ont paor ne de morir dotance.
Li emperedre s'en repaidret en France,
Ploret des uelz, tiret sa barbe blanche.
Dejoste lui chevalchet li dus Naime,
E dist al rei: "De queid avez pesance?"
Charles respont: "Tort fait quil me demandet;
Si grant duel ai ne puis muder nem plaigne.
Par Guenelon iert ja destruite France;
Anuit m'avint par une avison d'ángele
Qu'entre mes poinz me depeçout ma hanste.
Grant paor ai mes niés as porz remaignet;
Jo l'ai laissiét en une marche estrange:
Dieus! se jol pert, ja n'en avrai eschange!"

III. (*a*) Give the French doublets of the following:—*droit, espèce, essaim, farouche, frisson, homme, lâcher, meuble, porche, tradition, ministère, circuler, séparer, solliciter, opérer, monastère, blasphème, frêle, grêle, pâtre.*

(*b*) What philological laws are exemplified by these doublets?

IV. (*a*) Give the precise meaning and usage of the following:—*Gages, paie, salaire, honoraires, appointements, solde.*

(*b*) What light do these words throw on French social conditions?

FRENCH ESSAY.

SATURDAY, 2*nd April* 1898.—2 *to* 3 P.M.

Write an Essay, in French, on any *one* of the following subjects :—

(*a*) The position of Athletics in a liberal education.

(*b*) A comparison between the French and the English novel.

(*c*) The influence of climate on the development of character and intellect.

GERMAN.

FIRST PAPER.

MONDAY, 4*th April* 1898.—9 *to* 11 A.M.

1. Translate into English :—

(*a*) Guſtav Adolf hatte gegen zwanzigtauſend ſeiner Soldaten durch Krieg und Seuchen eingebüßt. Zertreten lagen alle umliegenden Felder, die Dörfer in Aſche, das beraubte Landvolk verſchmachtete auf den Straßen, Modergerüche verpeſteten die Luft, verheerende Seuchen, durch die kümmerliche Nahrung, durch den Qualm eines ſo bevölkerten Lagers und ſo vieler verweſender Leichname, durch die Glut der Hundstage ausgebrütet, wüteten unter Menſchen und Tieren, und noch lange nach dem Abzug der Armeen drückten Mangel und Elend das Land. SCHILLER.

(*b*) Was ſie mir ſagen, was Sie zuzuſetzen haben, das iſt ja nicht viel, da müſſen wir's ſachte angehen laſſen. Und dann denk' ich wenn mal ſonſt nichts zu thun iſt, da fangen wir ſo eben mit dem Drainieren an, daß die ſauren und naſſen Stellen aus dem Acker kommen. Sie ſollen mal ſehen, wie bald ſich das rentiert. Und dann denk' ich ſo nach'n Jahrener fünf, da können wir ſchon anders ins Zeug gehen und ſteuern ſo allmählig auf die Stallfütterung los.

Ja, könnten wir so'n zwei- bis dreihunderttausend Mark in die Hand nehmen, da sollt' die Sache schon anders kitschen, aber mit fünfzigtausend, da können wir hier nicht viel Sprünge machen.

H. SEIDEL.

(*c*) Wie alle Genies leistete er im Einfachsten das Schwerste: in dem sozusagen abgenutztesten, vorwiegend gedankenlos verwendeten Stoffe der landläufigen Religionsübung wurden ihm die tiefsten Wahrheiten wieder lebendig. Der ganze weitschichtige Apparat der kirchlichen Disciplin und des scholastischen Lehrmaterials leistete ihm nur den Dienst einer unsäglichen Mühsal kraftstählenden Durchkämpfens bis zu der reinen, schlichten Erfassung der Ur- und Grundbegriffe christlicher Frömmigkeit und jener neuen Formulierung des Christenstandes, die die Kulturforderungen der neuen Zeit allein zu tragen vermochte. A. E. BERGER.

(*d*) Die finstere Gestalt Butler's, das Werben der Mörder, das Zusammenziehen des Netzes um den Ahnungslosen ist in einer lange und stark anregenden Steigerung dem Zuschauer in die Seele gedrückt, nach solcher Vorbereitung wäre die Vorführung des Mordes selbst keine Verstärkung mehr; man sieht die Mörder in das Schlafzimmer eindringen, das Krachen der letzten Thür, das Waffengerassel und die darauf eintretende plötzliche Stille erhalten die Einbildungskraft in derselben unheimlichen Spannung, welche den ganzen Akt färbt. Und das langsame Aufregen der Phantasie, die langsame Erwartung und das letzte Verhüllen der That selbst passen wieder vortrefflich zu dem Träumerischen und Geheimnißvollen des inspirierten Helden, wie ihn Schiller gefaßt hat. G. FREYTAG.

(*e*) Der Slawata und der Martinitz,
Auf die der Kaiser, allen guten Böhmen
Zum Ärgernisse, Gnadengaben häuft —
Die sich vom Raube der vertriebnen Bürger mästen —
Die von der allgemeinen Fäulnis wachsen,
Allein im öffentlichen Unglück ernten —
Mit königlichem Prunk dem Schmerz des Landes

Hohn sprechen — die und ihresgleichen laßt
Den Krieg bezahlen, den verderblichen,
Den sie allein doch angezündet haben.

(*f*) Man kommt nicht aus mit sanften Mitteln, alles
Läßt sich nicht schonen. Wollte man's erpassen
Bis sie zu Wien aus vierundzwanzig Übeln
Das Kleinste ausgewählt, man paßte lange!
— Frisch mitten durchgegriffen, das ist besser!
Reiß' dann, was mag! — Die Menschen, in der Regel,
Verstehen sich aufs Flicken und aufs Stückeln
Und finden sich in ein verhaßtes Müssen
Weit besser, als in eine bittre Wahl.

2. Translate into Modern High German :—

(*a*) "Herr Pastuhr, in dat Tüftenkraut, dor sitt mal'n grugligen gälen Worm mit blage Striepen." —"So, hest em mitbröcht, wies' mal her!" — Da huddelte sie sich und sagte: "O ne, Herr Pastuhr, dei is mi tau gräsig antaufaten." SEIDEL.

(*b*) Quöm allet Wedder glik ön ons to schlan,
Wi sin gesönnt bi nen anger to stahn.
Krankheit, Verfölgung, Bedröfnös on Pin
Sal unsrer Löwe Vernöttinge sin.

(*c*) Wer leget ihn den Ton in Mund,
Dann laut und dann so leise?
Wer zirklet ihnen also rund
So mannigfaltig Weise?
Wer messet ihn den Athem zu,
Dasz mögens vollenführen
Den ganzen Tag, fast ohne Ruh,
So freudigs Türelüren?
O Gott, ich sing von Herzen mein,
Gelobet musz der Schöpfer sein.

3. Translate into English *one* of the following passages :—

(*a*) Sint quam he eins alse ein klusenere,

Reinke, de sulve olde def,
unde brachte mi do einen bref,
dar hangede juwe seggel nedden an,
dar vant ik in geschreven stan,
dat gi leten kundigen vasten vrede
allen deren unde vogelen mede.
He sprak, he were klusener geworden
unde wo he helde einen harden orden,
dat he sine sunde boten wolde,
unde ik vor em nicht mer vruchten scholde
unde mochte ane hode vor em wol leven.

(*b*) Man will ietzund zu herren machen,
Die ganz nüt künnent zu der sachen;
Fahent sie zu reden an,
Sie mieszents vorgeschrieben han
Und lernent dran wol zehen jor
Und künnents dannocht noch als vor:
Das ist leider zu vil wor,
Mit namen in der geistlichkeit!
Do mancher treit ein oberkeit.

4. Translate into English *one* of the following passages:—

(*a*) Swelch man wirt âne muot ze rîch,
wil er ze sêre striuzen sich
ûf sîne rîcheit, sô wirt er ze hêre.
ze rîch und z'arm diu leschent beide sêre
an sumelîchen liuten rehten muot.
swâ übric rîcheit zühte slucket
und übric armuot sinne zucket,
dâ dunket mich enwederz guot.

(*b*) Diu werlt mich lachet triegent an
und winket mir.
nû hân ich als ein tumber man
gevolget ir.

Der hâken hân ich manegen tac
geloufen nâch:
dâ niemen stæte vinden mac,
dar was mir gâch.
Nû hilf mir, herre Krist,
der mîn dâ vârend ist,
daz ich mich dem entsage
mit dînem zeichen, deich hie trage.

5. Which of the above passages are in Low German? State your reasons.

6. Point out the principal phonetic changes in Modern High German as compared with Middle High German, using as the basis of your remarks the text of passages **4.** (*a*) and (*b*).

SECOND PAPER.

MONDAY, *4th April* 1898.—11.30 A.M. *to* 1.30 P.M.

1. Translate into German:—

(*a*) From Shakespeare, no doubt, the world may learn, and has learnt, much, yet he preferred so little to be a teacher, that he has often been represented as almost without personal opinions, as a mere undisturbed mirror, in which all nature reflects itself. Something like a century passed before it was perceived that his works deserved to be in a serious sense studied. Dante was to his countrymen a great example and source of inspiration, but hardly, perhaps, a great teacher. On the other hand, Goethe was first to his own nation, and has since been to the whole world, what he describes his own Chiron, "the noble pedagogue," a teacher and wise counsellor on all the most important subjects. J. R. SEELEY.

(*b*) For the moving of pity our principal machine is the handkerchief; and indeed in our common tragedies we should not know very often that the persons are in distress by anything

they say, if they did not from time to time apply their handkerchiefs to their eyes. Far be it from me to think of banishing this instrument of sorrow from the stage; I know a tragedy could not subsist without it: all that I would contend for, is to keep it from being misapplied. In a word, I would have the actor's tongue sympathise with his eyes. ADDISON.

(*c*) That children often appear to the adult as unfeeling as a stone, is, I suppose, incontestable. The troubles which harass and oppress the mother may leave her small companion quite unconcerned. He either goes on playing with undisturbed cheerfulness, or he betrays a momentary curiosity about some trivial circumstance of her affliction which is worse than the absorption in play, through its tantalising want of any genuine feeling. If, for example, she is ill, the event is interesting to him merely as supplying him with new treats. A little boy of four, after spending half an hour in his mother's sick-room, coolly informed his nurse: "I have had a very nice time, mamma's ill." J. SULLY.

2. Answer any *three* of the following:—

(*a*) Welche Bedeutung hat Wallenſteins Lager für das Ganze des Dramas, und in wiefern zeigt dieſe Arbeit einen Gegenſatz in Stil und Auffaſſung zu den übrigen poetiſchen Werken Schillers?

(*b*) Kurze Inhaltsangabe und Commentar zu zwei Gedichten Goethes, auszuwählen unter:—Schwager Kronos, Prometheus, Ilmenau, Harzreiſe im Winter, Kennſt du das Land, Hans Sachſens poetiſche Sendung, An den Mond.

(*c*) Welches ſind die Stoffe und Stileigentümlichkeiten des deutſchen Volksliedes und die Stellung desſelben in der deutſchen Litteratur?

(*d*) Welches ſind die Stoffe und die Formen der Lyrik Walters von der Vogelweide?

3. Discuss *one* of the following subjects:—

(*a*) Schiller als Geſchichtsſchreiber, ſeine Methode und ſein Stil.

(*b*) Die Bedeutung der Kreuzzüge für die deutſche Kultur.

(*c*) Das Zeitalter des Humanismus und die Entstehung der Faustsage.

ESSAY.

MONDAY, *4th April* 1898.—2 *to* 3 P.M.

Write an essay, in German, on any *one* of the following subjects:—

Der Character Gustav Adolphs von Schweden.

Goethe in den ersten Jahren nach seiner Ankunft in Weimar.

Natur und Landschaft in Seidels "Der Schatz."

SANSKRIT.

FIRST PAPER.

SATURDAY, *16th October* 1897.—9 *to* 11 *o'clock.*

I. Translate into English:—

1. *Hitopadeśa* (Johnson, 1847), II. lines 1229-1245.
2. Do. II. verses 6, 16, 41, 67, 151.
3. *Nala*, vi. 5-11.
4. Do. x. 15-20.

II. 1. Nom., Gen. singular; Nom., Loc. plural of *sakhi*, *pati*, *śvan*, *sīman*, *pathin*.

2. Instrum., Dat., Loc. singular of *mālā*, *kṛiti* (f.), *muni* (m.), *vadhū* (f.), *tad* (m.f.n.)

3. Nom. and Acc. singular masculine of primary (or irregular) comparative of *uru*, *guru*, *dīrgha*, *yuvan*, *praśasya*.

4. 3rd sing. and plur. Present indicative and Imperfect Parasmaipada of *as* (to be, 2), *kṛi* (8), *bhid* (7), *gam* (1); and the same persons of the Ātmanepada of *ās* (to sit, 2).

5. 1st sing. and 3rd plur. Optative Parasmaipada, and 2nd

sing. Imperative Parasmaipada and Ātmanepada of *sic* (6), *dṛiś*, *jñā* (9), *ci* (5), *āp* (5).

6. 3rd singular and plural Perfect and Aorist Parasmaipada of *bhū*, *vac*, *nī*, *bhid*, *kṛi*.

7. Infinitive and Past participle of *kṛi*, *bhid*, *dhā*, *yuj*, *grah*, *vac*.

SECOND PAPER.

SATURDAY, 16*th October* 1897.—11.30 *to* 1.30 *o'clock*.

1. Translate into Sanskrit:—

In the Śrīparvata mountain there is a town called Brahmapura. There a popular rumour was spread that a demon, Ghaṇṭākarṇa by name, lived on one of the mountain peaks. One day a certain thief, having taken away somebody's bell, was killed by a tiger, as he was making off. The bell, which had fallen from his hand, was found by monkeys, who kept constantly ringing it. The townspeople soon found out that the man had been devoured, and they continually heard the sound of the bell. So all the people fled from the town exclaiming, "Ghaṇṭākarṇa, being angry, is devouring men and ringing his bell." Thereupon the king was addressed by a woman called Karālā, who by reflecting had found out by herself that it was monkeys who were ringing the bell: "Please your Majesty, if some little expenditure of money be made, I will settle that Ghaṇṭākarṇa." The king, delighted at her words, gave her some money. Thereupon the woman, having drawn a circle and paid honour therein to Gaṇeśa and others, took with her such fruit as monkeys delight in, and, entering the wood, scattered the fruits about. Then the monkeys, relinquishing their bell, became intent on the fruit, while the woman, seizing the bell, returned to the town and became an object of respect to all the people.

2. (1) State briefly what you know of *Kālidāsa*, *Daṇḍin*, *Patañjali*, *Bhartṛihari*.

(2) Describe shortly each of the following works, giving the name of the author when known:—*Atharvaveda*, *Aitareyabrāhmaṇa*, *Kumārasambhava*, *Pañcatantra*, *Mānavadharmaśāstra*, *Meghadūta*, *Mālavikāgnimitra*, *Rāmāyaṇa*.

(3) Quote from European languages words etymologically cognate to each of the following verbs and nouns:—*icchati*, *paśyati*, *bhuṅkte*, *śaṅkate*, *śrayati*, *sīdati*; *keśa*, *jānu*, *tanu*, *yuvan*, *vāñchā*, *visha*, *śaśa*, *śvan*, *svapna*.

CELTIC.

FIRST PAPER—MODERN GAELIC.

WEDNESDAY, 23*rd March* 1898.—9 *to* 11 A.M.

I. Translate into English:—

Bha mi 'n dé san aonach,
'S bha smaointean mor air m' aire-sa,
Nach robh 'n luchd-gaoil a b' àbhaist
'Bhith siubhal fàsaich mar rium ann;
'S a' bheinn is beag a shaoil mi
Gu'n deanadh ise caochladh,
Bho 'n tha i nis fo chaoraich,
'S ann thug an saoghal car asam.

'N uair sheall mi air gach taobh dhiom,
Cha'n fhaodainn gun bhith smalanach,
Bho 'n theirig coill is fraoch ann
'S na daoine bh' ann cha mhaireann iad;
Cha'n eil fiadh r' a shealg ann,
Cha'n eil eun no earb ann,
Am beagan nach 'eil marbh dhiubh,
'S e rinn iad falbh gu baileach as.

II. Translate and parse *two* of the following :—

Cha d' thug cridhe goirt nach d' fhuair cridhe goirt.

Is minig a chunnaic an dall ni b' fhaide na fear 's a shuilean aige.

Is mor a' mharcachd tha 'n each cosdaidh.

III. Translate into English :—

Tha 'latha fein aig gach madadh,
'S thig an là is faide gu crich ;
Cha shlighe bhuan ach astar suarach,
Tha eadar an uaigh 's a' chìoch ;
Slainte 's òige, seilbh ro-ghlormhor,
'S fearr na òr a' chruinne-ché ;
Bi taingeil fhad 's a tha iad agad,
Oir cha mhair iad ach car ré ;
Olc air mhath leinn, thig sinn uile,
Gu 'r ceann-uidhe, luath no mall ;
'S garbh no réidh g' am bi an turus,
Cha bhi bith 's a' chruinn' air chall.

IV. Translate into English :—

Och ! òg-bhean, is faoin do bhruadar ;
An t-uasal gu bràth cha'n fhaic thu !
Fad o dhachaidh thuit do ghradh,
An Innis-fail fo smal tha mhaise.
Duisgidh tus', a Chrimine,
'S chi thu gu'n robh t' aisling mealltach,
Ach cuin a dhuisgeas esan o shuain,
No bhios cadal na h-uaighe criochnaicht' ?
Fuaim ghaothar no builean sgiath
Cha chluinnear 'n a chriadh-thigh caol ;
'S a dh'aindeoin gach iomairt is seilg
Caidlidh 's an leirg an laoch.

"A chriadh-thigh caol" : what suggestion can you find here, and in "a chaol-chomhnaidh," some lines farther on, as to the age of the poem ?

V. Translate into Modern Gaelic (Scottish *or* Irish) :—

A Prayer.

Almighty God, we are Thy workmanship; we are Thy husbandry. We are not the accidents of the time or the occasion; we express the fore-ordination and infinite sovereignty of God. We will look upon ourselves highly; we will rejoice in our princedom. We are not of the earth, earthy, when we are accepted in the Beloved; we are then heirs of God, and joint heirs with Christ. So we will not look downward and see the grave; we will look upward and see the immortality. We will think of the radiant heaven, pure angels, sanctified spirits, the one throne, the infinite light, the ineffable purity; and so filling our minds with things Divine, we shall triumph over present pain and necessity, and trouble, and death itself.

VI. Give a short account of the life of (1) Duncan Ban M'Intrye, with an appreciation of his poetry, *or* (2) Dr. John Smith, with a list of his works.

SECOND PAPER—OLD GAELIC.

Wednesday, 23*rd March* 1898.—11.30 A.M. *to* 1.30 P.M.

I. Translate into English :—

Luid iarom Ailill ina airicul ocus dober a druim fria raigid ocus ni bu saim a menma ocus ba aingcess laiss in dál dod fánic ocus *nir* chotail ocus ni ro loing co cend tri lá ocus teora n-aidche, *conid* and asbert Medb: "Is midlachda no *tai*," ol si. "Mani brethaige-seo, brethaigfet-sa." "Is andso dam-sa ém a m-brethugud," or Ailill, "ocus is mairg cosa tuced." "Ni andsa immorro," ol Medb, "fo daig" or si "na *fil* eter creduma ocus findruini, atá eter Loegaire ocus Conall Cernach. A fil dan" or si "eter findruini ocus dergór, atá eter Conall Cernach ocus Coinculainn."

Parse fully the words in italics.

II. Translate into English :—

Is ann sin do eirgetar Clanna Morna i naeinfecht don tulaig acht in seiser sin. Ocus a dubradar na hingena : "an é ar marbadne as áil dúib?" "Is é imorro," ar Conán. "Dobéramne comha mhaith dáib," ar na mná .i. "gach olc ocus gach écóir dorónabair re Fionn ocus risin Féinn riam a maithem dáib, ocus síd do dénam edraib, ocus ár mbeith féin do mhnáib acaib." Ocus nír damad dóibsium etir in ní sin. Ocus tucsat trí béimenna dóib gur bhensat a trí cinn diob. Ocus do chuired fó thalmain ann so iat, co fuilit fó na trí cairthibsea, ocus conod uatha ainmnigter iat. Etáin ocus Aifé ocus Ailbe a nanmanna.

III. Combine *two* of the following prepositions with the personal pronouns (singular and plural) in Old and Modern Gaelic :—*oc, for, imb.*

IV. Translate into Old Gaelic :—

When the house was built and every preparation made, the bard invited the nobles of Ulster with their wives and daughters to the feast. They did not wish to go, nor did they see their way to refuse. They saw that evil would come of it whether they went or stayed.

V. Illustrate the meaning of the prefixes *au-, as-*, and of the suffixes *-amail, -rad*, in Old and Modern Gaelic.

VI. "Is maith a fhuaradh thu."

Parse *a*, and write a full note on the form and use of the relative in Old and Modern Gaelic.

VII. Give a brief account of the Milan Codex *or* the Book of Deer.

II.—MENTAL PHILOSOPHY.

LOGIC AND PSYCHOLOGY.

FIRST PAPER.

MONDAY, 28*th March* 1898.—3 *to* 5 *o'clock.*

Not more than SEVEN *questions to be answered.*

1. Give the *contradictory*, *converse*, and *contrapositive* of the following propositions:—

(*a*) Some men are not scholars.

(*b*) Only graduates are eligible.

2. Define the *hypothetical syllogism*, note the principle of inference on which it is based, and show what are the fallacies of the categorical syllogism to which its invalid forms correspond.

3. Show how Mill's five Methods are variations of two fundamental types, and how they all depend on the Law of Universal Causation.

4. Explain each of the several steps of the *Deductive* (or *Hypothetico-deductive*) *Method*. In what circumstances is resort to this method necessary?

5. "Every proposition may be read either in extension or in intension." Test this statement by the example "Some dogs are vicious," and examine Hamilton's scheme of quantified predication as a coherent account of propositions when read in extension.

6. Is the syllogism a *petitio principii*? Note the reasons advanced in support of this charge, and consider their validity.

7. Illustrate by results the psychological importance of the investigation of abnormal mental states.

8. What are the chief points to which experiment has been successfully directed in Psychology? Indicate any definite results obtained.

SECOND PAPER.

TUESDAY, 29*th March* 1898.—3 *to* 5 *o'clock.*

(*Not more than* SEVEN *questions to be answered.*)

1. Distinguish between the perception of *distance* and that of *solidity*, and give a general description of the physiological basis of each.

2. Distinguish carefully between an *image* and a *concept*, and discuss the use of imagery in conceptual thought.

3. Give a brief outline of the teaching of *Empedocles* and of *Anaxagoras*. How far does their point of view differ from that of their predecessors in Greek Philosophy?

4. Explain Aristotle's doctrine of the Four Causes, and the philosophical bearing of his distinction between Potentiality and Actuality.

5. Explain the difficulty of the interaction of mind and matter, as it appeared to Descartes. How was it treated by Geulinx, Malebranche, Spinoza, and Leibnitz?

6. Explain Locke's distinction between "the secret abstract nature of substance in general," and "particular distinct sorts of substances," and examine his account of the former idea in the light of his general theory of knowledge.

7. Carefully analyse Berkeley's conceptions of a "Natural Thing or Object," and of a "Natural Law." What does he mean by the *sameness* of things, and by the *uniformity* of nature?

8. By what arguments does Hume seek to prove that our inferences from past experiences to future are not founded upon *Reasoning*?

MORAL PHILOSOPHY.

FIRST PAPER.

THURSDAY, 31*st March* 1898.—11.30 *to* 1.30 *o'clock.*

1. On what grounds has the apprehension of Moral Distinc-

tions been attributed to a *Moral Sense*? How far is the implied analogy justified?

2. Consider, with regard to the idea of freedom of will, the statement that actions are caused by character and circumstances.

3. By what arguments do Hedonists and Intuitionists respectively maintain that it is right for the individual to pursue the general good?

4. Explain the nature of the relation between Conduct and Character. What is the ethical value of a good action proceeding from a settled character?

5. How would you characterise the Moral Ideal? Consider especially whether its constitution should be defined (*a*) as a personal character, or (*b*) as a system of principles.

6. Examine the conception of *desire* on which Mill's Utilitarianism is founded. How far is it consistent with the social character of the theory?

SECOND PAPER.

THURSDAY, 31*st March* 1898.—3 *to* 5 *o'clock.*

1. Compare and contrast Socrates with the Sophists, in regard to *aim*, *method*, and *teaching* respectively.

2. Explain Plato's conception of the nature and faculties of the soul, and its relation to his account of the state.

3. Outline Aristotle's theory as to the nature of Virtue, and its relation to the *Summum Bonum.*

4. What is the value of Butler's theory of *Benevolence*? Explain its position over against (1) the particular affections, (2) Conscience and Self-love.

5. Compare the ethical teaching of Butler with that of Shaftesbury and Clarke, *or* of Hutcheson and Price respectively.

6. Discuss the significance of Kant's conception of Humanity

as an end in itself. What bearing has it upon the Theory of Moral Obligation?

POLITICAL ECONOMY.

FIRST PAPER.

THURSDAY, 17*th March* 1898.—2.30 *to* 4.30 *o'clock.*

[*Answer* SEVEN *Questions only.*]

1. What is meant by the *Production* of *Wealth*? Would you consider the labour employed in transport and banking as productive labour?

2. Define Fixed and Circulating Capital. State some of the principal effects of the introduction of machinery on wages.

3. Explain the terms Utility and Disutility as applied to Labour and the Produce of Labour. Illustrate your answer with curves.

4. Compare and contrast the Laws of Increasing and Diminishing Return.

5. What is meant by the accumulation of Capital, and what are the chief causes affecting it? Distinguish different cases.

6. What are the economic bases of private property?

7. On what principles should compensation be given by the State in case of expropriation?

8. What are the principal points of difference between the Wages Fund and the Produce theories of Wages? Illustrate your answer by reference to the effects of Trade Unions on Wages.

9. What are the constituent elements of Profits? How far do they show a tendency to equality?

SECOND PAPER.

FRIDAY, 18*th March* 1898.—2.30 *to* 4.30 *o'clock.*

[*Answer* SEVEN *Questions only.*]

1. What is Economic Rent? In what respects does *Quasi-Rent* differ from true economic rent? Is the royalty paid on the output of a mine of the nature of economic rent?

2. State the general Law of Demand, and explain, with examples, the meaning of *Elasticity of Demand.* Illustrate your answer with curves.

3. Show how changes in Demand may ultimately affect normal values.

4. Distinguish between the Mint Price and the value of Gold. In what cases may the Mint Price of Gold differ from the Market Price?

5. State the Quantity Theory of Money in its simplest form, and indicate the principal qualifications necessary to make it applicable to the value of money in England at the present time.

6. Examine the advantages claimed for, and the difficulties involved in, International Bi-metallism.

7. How far does the Cost of Production of Gold and Silver determine their relative values?

8. Examine Adam Smith's Exceptions to Free Trade. Would countervailing duties against Sugar Bounties be in accordance with Adam Smith's principles?

9. How does Adam Smith estimate the advantages of different modes of employing capital? Show how he makes use of the distinction in his argument on the Monopoly of the Colonial Trade.

10. What are the essential differences between Home and Foreign Trade for the purposes of pure theory?

11. Explain the terms:—*Par of Exchange; Specie Points; Rise and Fall in the Exchanges.*

EDUCATION.

FIRST PAPER.

FRIDAY, *25th March* 1898.—9 *to* 11 A.M.

1. From the idea of the Supreme End of Education as Ethical, derive the Educative Process, and point out how its nature is thence determined and its steps are distinguished.

2. Distinguish clearly Sensation, Perception, and Sense-Conception. Discuss their relations, and relate to each stage the concomitant Principles of Method.

3. By what canons are the place and the relative importance of various subjects as materials of Education to be determined? Sketch such a harmony.

4. Discuss Association as a condition of Assimilation, and consider contrasting theories.

5. What are the purposes of the teaching of Grammar? Show how its method is thereby determined.

6. Discuss the relations between Intellectual and Ethical discipline.

7. What is the place and what are the limitations of Sense Realism, as compared with the claims of Humanistic studies?

8. What is the Educational value of Arithmetic in the Upper-Primary School? Illustrate by reference to the teaching of Proportion.

SECOND PAPER.

FRIDAY, *25th March* 1898.—11.30 *to* 1.30 *o'clock.*

1. Give reasons for assigning a high place to Comenius as a reformer in Education.

2. State and illustrate four of the principles laid down in the

Great Didactic, in accordance with which the education of the pupil may proceed EASILY.

Or,

Describe generally the School System proposed by Comenius.

3. "The main (I had almost said only) thing to be considered in every action of a child, is what influence it will have upon his mind; what habit it tends to, and is like to settle in him."—LOCKE. Examine this statement; and connect with your remarks some account of Locke's views on the formation of good habits.

4. Write a summary of the main positions laid down in the *Conduct* under the head of *Partiality*.

Or,

Explain briefly what Locke, in the same treatise, means by—*Indifferency*, *Observation*, *Universality* *Intermediate Principles*, *Resignation*, *Bottoming*.

5. What are the usual errors in teaching English Composition? Describe fully how you would proceed in teaching it yourself.

6. State and discuss some of the reasons that have been given for continuing to teach Latin in modern times.

7. Point out the merits of Rousseau's *Émile* as a contribution to educational thought.

SCHOOLMASTER'S DIPLOMA.

ADDITIONAL PAPER.

SATURDAY, 26*th March* 1898.—12 *to* 3 *o'clock*.

1. Describe the aim and general characteristics of Hellenic Education; and explain in what chief respects the training of an Athenian differed from that of a Spartan.

2. State and discuss the general principles of Roman Education.

3. Describe some of the educational ideas and methods of Quintilian, that seem to you valuable for the work of the teacher.

4. "Milton was a Realist and Encyclopaedist like Comenius, but in some respects different." Examine this statement; and give, in support of your criticism, as many references as you can to the *Tractate* and the *Great Didactic.*

5. Write a short account of Pestalozzi's experiment at Stanz, and point out its influence upon his subsequent work as an educator.

6. Sketch the life of Friedrich Froebel; and state and comment on the leading doctrines of the so-called "New Education."

7. At what stage of instruction in Arithmetic, and by what method, would you introduce a class to a knowledge of Decimal Fractions? Illustrate your answer by concrete examples.

Or,

Discuss the value of Home Lessons. If you had to prescribe these, state, with your reasons, the nature and the amount of the work you would exact.

Write a thesis on either:—

(*a*) The Educational Value of Manual Instruction (Hand and Eye Training), as part of the curriculum of a school.

Or,

(*b*) The Claims of Natural Science to a place in the school curriculum.

PHILOSOPHY OF LAW.

See Papers under Faculty of Law.

III.—SCIENCE.

PURE MATHEMATICS.

FIRST PAPER.

WEDNESDAY, 30*th March* 1898.—3 *to* 5 P.M.

1. Prove that the angle subtended by any arc of a circle at the circumference is half the angle subtended at the centre.

A column surmounted by a statue stands on a level plain. The statue subtends the same angle θ at two points distant a and b from the foot of the column. Find the height of the statue and of the column.

2. Shew that the three perpendiculars from the vertices on the opposite sides of a triangle are concurrent.

If A', B', C', the points where the perpendiculars from the vertices of a triangle meet the circum-circle, be given, shew how to construct the triangle.

3. If O be an internal point in the base BC of a triangle ABC, such that $m.OB=n.OC$, prove that

$$m.AB^2+n.AC^2=m.OB^2+n.OC^2+(m+n)\ OA^2.$$

If O divide the base BC internally so that $BA : AC=CO : OB$, shew that

$$AB^2+AC^2=(AB+AC)\,(OB.OC+OA^2);$$

$$AB^2+AC^2-AB.AC-OA^2=OB.OC.$$

4. Shew that four different circles can in general be drawn to touch three given straight lines which form a triangle ABC; and calculate the four radii in terms of the area and sides of ABC.

Two equal circles are inscribed (internally) in a rectangle whose sides are a and b, so that they touch each other, and one touches one pair of adjacent sides of the rectangle, and the other the opposite pair. Calculate the common radius in terms of a and b.

5. If four straight lines are proportional, shew that the rectangle contained by the extremes is equal to that contained by the means.

If a, b, c represent three straight lines, construct the straight line represented by $\frac{a^3}{b^2+c^2}$.

6. Prove that the volume of a pyramid is one-third of the volume of the triangular prism of the same altitude on the same base.

The base of a pyramid is a square, whose side is a; and the other four faces are equilateral triangles: calculate its volume.

7. Prove that the cross ratio in which four concurrent straight lines meet a variable straight line is constant.

Prove that a diagonal of a complete four-point is cut harmonically by the four points in which it meets the six sides.

8. Trace the graph of the function $y=\sin x / \cos 2x$. Under what circumstances has the equation $\sin x=\mu \cos 2x$ a root lying between 0 and $\frac{1}{4}\pi$? What can you tell regarding its other roots?

Shew that $\dfrac{2\sin A\cos(B-C)+\sin 2B+\sin 2C}{2\cos A\cos(B-C)-\cos 2B-\cos 2C}=\cot\dfrac{B+C-A}{2}$.

9. Find, for any case you like in which A and B are greater than 90°, expressions for the sine and cosine of $A+B$ in terms of the sines and cosines of A and B.

Deduce an expression for $\cos 3A$ in terms of $\cos A$.

Shew that the roots of $x^3-6x^2+8=0$ are $\operatorname{cosec} 10°$, $\sec 40°$, and $-\sec 20°$; and, by considering the graph $y=x^3-6x^2+8$, find the pair of integers between which each of these lies.

10. Find expressions for the remaining side and angles of a triangle in terms of two sides and the contained angle.

If $a=2000$, $c=3732$, $B=30°$, shew that the triangle is obtuse angled, and to a rough approximation isosceles.

11. Find the equation of the two tangents from a given point to a circle.

Two tangents to a circle intercept on a fixed diameter segments (measured from the centre) the rectangle under which is constant. Find the locus of their intersection.

Or, as an alternative,

Prove that the inverse of a circle is a circle or a straight line, distinguishing the cases.

A variable circle touches two fixed circles: shew that the line joining the two points of contact passes through a fixed point.

12. If the normal at any point P on a conic meet the major axis in G, and F be the focus, prove that $FG=eFP$.

If R and S be the projections of the focus on the tangent and normal at any point on a central conic, shew that RS always passes through a fixed point. What is the corresponding theorem for the parabola?

Or, as an alternative,

Find the equation to the locus of the middle points of all chords of the conic $ax^2+by^2-1=0$ whose inclination to the x-axis is a given angle θ.

Shew that, if ϕ be the angle between the diameter of the chords in question and the diameter of the perpendicular chords, then $2\cot\phi=(b/a-a/b)\sin 2\theta$.

SECOND PAPER.

THURSDAY, 31*st March* 1898.—9 *to* 11 A.M.

1. Find the G.C.M. and the L.C.M. of

$$x^3+\tfrac{11}{2}x^2+\tfrac{17}{2}x+3 \text{ and } x^3+\tfrac{16}{3}x^2+\tfrac{23}{3}x+2.$$

Does it follow that, when an integral value is given to x, the G.C.M. becomes the arithmetical G.C.M. of the arithmetical values of the two functions?

Shew that, if $P=ax+by$, and $P'=a'x+b'y$ where a, b, a', b' are

integers, it is possible to give such finite integral values to x and y that P'/P is also integral.

2. Shew that a rational proper fraction whose denominator is the product of two integral functions which are prime to each other can always be resolved into the sum of two proper fractions whose denominators are the integral functions aforesaid.

Resolve $(x^3+3x^2-x+3)\,(x^4-1)$ into partial fractions.

3. Shew how to sum a geometric series; and deduce (or otherwise find) the sum $\sum_{r=1}^{r=n} a_r$, where successive terms are connected by the relation $a_{r+1}+\lambda a_r+\mu=0$.

Shew that the arithmetic series is a particular case of the latter.

4. Shew that the quotient of two complex quantities can always be expressed as a complex quantity, whose modulus is the quotient of the modulus of the dividend by the modulus of the divisor, and whose amplitude is (to a multiple of 2π) the difference of the amplitudes of the dividend and divisor.

Find all the fourth roots of the imaginary unit i.

Simplify $\left(\dfrac{\cos\alpha-i\sin\alpha}{\cos 2\alpha-i\sin 2\alpha}\right)^2+\left(\dfrac{\cos\alpha+i\sin\alpha}{\cos 2\alpha+i\sin 2\alpha}\right)^2$.

5. Find expressions for the ratios of the coefficients of a quadratic equation in terms of the roots; and deduce the necessary conditions that two quadratics should have the same roots.

If α and β are the roots of $ax^2+2bx+c=0$, find the equation whose roots are $1/\alpha$, $1/\beta$, $1/(\alpha+\beta)$, $1/\alpha\beta$.

6. Shew that the equations $Ax^4+Bx^3+Cx^2\pm Bx+A=0$ can always be solved by means of quadratics.

Solve the following

$$\frac{\sqrt{(x+1)}}{x+1}-\frac{\sqrt{(x-1)}}{x-1}=\frac{\sqrt{x}}{x};$$

$$x+y+z=0,\ x+2y+3z=0,\ x^3+y^3+z^3=3yz-4.$$

7. Prove that a rational integral function of degree n cannot vanish for more than n values of the variable.

Shew that any set of values of x, y, z which satisfy the equations $\Sigma x=a$, $\Sigma xy=b$, $xyz=c$ are the three roots of the equation

$$\xi^3+b\xi=a\xi^2+c.$$

Solve the system

$$x+y+z=5,\ x^2+y^2+z^2=11,\ x^3+y^3+z^3=29.$$

8. Prove that

$$\prod_{r=0}^{r=2n-1}(x-e^{\pi ri/n})=x^{2n}-1,$$

and express the product as the product of real quadratic factors.

Resolve into linear factors and into the lowest real factors

$$x^9+y^9 \text{ and } x^6+y^6-x^2y^2.$$

Or, as an alternative,

Prove that five points determine a conic. If the conic is a circle how many points are required?

In what circumstances can a right circular cylinder be drawn through five given coplanar points?

9. Find expressions for (1) $\log_b a$ in terms of $\log_a b$, (2) $\log_{10} a$ in terms of $\log_e a$.

Given $\log_{10}2=\cdot30103$, $\log_{10}3=\cdot4771213$, $\log_{10}e=\cdot4342945$, to the nearest 7th place of decimals, find the logarithms of $2^2 3^{-3} 4^4 5^{-5}$ to the bases 10 and e; and estimate the possible error of each.

10. If x be any positive real quantity different from unity, and p and q positive integers, shew that $(x^p-1)^p > < (x^q-1)^q$ according as $p > < q$.

Find the limiting value of $(xe^x-x+x^2)/x^2$ when $x=0$.

Or, as an alternative,

Find an expression for the diagonals of a cyclic quadrilateral in terms of its sides.

Find also an expression for the sine of the angle between the diagonals.

11. Find an expression for the number of linear permutations of n things, α of which are all alike, β all alike, γ all alike, etc.

Write down the expansion of $(a+b+c)^6$.

12. Shew that the equation to any straight line can be thrown into the form $x\cos\alpha+y\sin\alpha-p=0$, and find the geometrical meaning of p and α.

A and B are points on the axis of x such that $OA=a$, $AB=b$. Circles are described on OA and AB as diameters: find the equations to the common tangents.

NATURAL PHILOSOPHY.

FIRST PAPER.

FRIDAY, 1*st April* 1898.—9 *to* 11 A.M.

Not more than EIGHT *Questions are to be attempted.*

1. State the second Law of Motion. Explain and amplify it, and apply it to prove the parallelogram of Forces.

The directions of forces of 2, 3, 4, and 5 dynes are given by four consecutive sides of a regular hexagon, taken in the same direction round. Find their resultant if they act simultaneously on a particle.

2. A cyclist finds that when he makes his best speed the wind appears to be always within 30° of right ahead. Explain this, and if the wind blows up to 8 miles an hour, find the cyclist's greatest speed.

3. Find the motion of a particle starting from rest under the action of a constant force.

A smooth wedge on which a slab is to be placed, lies with one slant face on a table. At what acceleration must it be pushed forwards so that the slab may not slide down?

4. Find expressions for the horizontal and vertical spaces passed over by a projectile after a given time.

Prove that for a given speed of discharge the range in a horizontal plane is greatest with the elevation 45°.

5. The speed of an engine working under a constant load, increases uniformly from zero for 5 minutes, and then remains steady for 25 minutes. If the total work done in this half-hour is $3\frac{1}{2}$ million footpounds, find the horse-power of the engine.

6. Find the conditions of equilibrium of a body floating in a liquid.

A cone floats in water apex downwards with its Centre of Mass at the level of the surface. What is its density? How far would it have to be immersed, apex upwards, for equilibrium?

7. What do you understand by the density of a substance? How would you determine experimentally the density of (1) lead, (2) wood, (3) air at given pressure and temperature?

8. On what conditions does the passage of gases through a porous membrane depend?

It is found that oxygen passes from the lungs into the bloodvessels, while the pressure of oxygen in the lungs is less than in the bloodvessels. Can you suggest any explanation?

9. State the laws of Boyle and Charles. When the change of volume of a gas takes place adiabatically, what is the nature of the modification which the relation between volume and pressure assumes?

Show how the neglect of this consideration led to error in the question of speed of sound.

10. The latent heat of water is 80. If the energy of the fall of a waterfall 424 metres high all goes to heat the water, the temperature of the water is 1° C. higher below the fall than above. From these data find the number of metre-kilogrammes required to change a kilogram of ice at 0° C. into water at 50° C.

11. What is meant by the polarisation of light? What is the difference in the action of tourmaline, a Nicol's prism, and reflection from glass at a particular angle, in polarising light?

12. What does spectrum analysis tell us of the constitution of the sun? Is the division of sunlight into seven colours scientific? What is the cause of the dark bands in the spectrum, and to what various uses have they been applied?

SECOND PAPER.

FRIDAY, 1*st April* 1898.—11.30 *to* 1.30.

Not more than EIGHT *questions to be answered except by Candidates for the Mackay Smith Scholarship.*

1. Explain the expression "What is gained in power, is lost in speed." Put it in more scientific terms, and show that it then becomes a concise statement of the function of a machine.

2. Enuntiate what are called "Kepler's Laws" and show how each was used by Newton in establishing a part of the Law of Gravitation. Contrast the two senses in which the word "Law" is used in these expressions.

3. Show that change of *form*, merely, as in the steady flow of water, is kinematically equivalent to the superposition of simple linear extensions and compressions in different directions.

4. State generally how the compressibility of a liquid can be directly measured, and give a general notion of its amount in water and in sea-water at ordinary temperatures. How can the result be tested by measuring the speed of sound in water, and why?

5. Give the successive steps of the explanation of the behaviour of water in a capillary glass tube:—showing the experimental, or other, justification of each step.

6. How did Römer explain the alternate hastening on and postponement of the eclipses of Jupiter's Satellites? Give recent instances, alike from sound and from light, of valuable applications of his principle.

7. Distinguish carefully between Heat and Temperature; and point out how Carnot rendered possible an absolute definition of temperature.

8. How do we obtain an approximate knowledge of the amount of heat which the Earth receives annually from the Sun? Give a notion of the relation which this bears to the Sun's total annual expenditure.

9. State the Law of Single Refraction and find from it the appearance which is presented to an eye in air looking almost horizontally at a spherical body placed under still water.

10. State the fundamental facts of—

(*a*) Contact Electricity,
(*b*) Thermo-Electricity,
(*c*) Electromagnetism,
(*d*) Magneto-Electricity.

Point out how the Conservation of Energy implies (*d*) as a necessary concomitant of (*c*).

11. How is the Capacity of a Conductor for electricity defined, and how practically measured? Explain the immensely increased capacity when the conductor is double, as in a Leyden Jar.

12. Give instances of Dissipation of Energy from ordinary physical phenomena; and also on a gigantic scale, as in the solar system.

CHEMISTRY.

See Papers under Faculty of Medicine.

ZOOLOGY.

TUESDAY, 22*nd March* 1898.—10 *to* 12 *o'clock.*

1. Write a short account of the Echinoderm group. Give one or more examples of the chief sub-divisions.

2. Describe the breathing apparatus in Arenicola, Balanoglossus Ascidia, Amphioxus, and Myxine.

3. State shortly how the early Eocene mammals differ from recent forms. How do you account for the differences?

4. Describe the changes that occur during the maturation, fertilization, and segmentation of a holoblastic ovum. Mention some of the advantages of cross fertilization.

5. Where are Edentates found?

BOTANY.

TUESDAY, 22*nd March* 1898.—1 *to* 3 *o'clock.*

Illustrate your Answers by Drawings.

1. Write an account of the life-history of:—Spirogyra, Collema, Agaricus. Point out the physiological differences which distinguish them.

2. Compare the morphological features of:—Rhizome of Iris, Rhizome of Polygonatum, Rhizome of Oxalis, Corm of Colchicum, Bulb of Scilla, Bulb of Lilium.

3. Describe the sporophyte of Selaginella, and point out wherein it differs from that of a fern.

4. Give an account of the characters of Cyperaceae. How is this Order distinguished from Juncaceae and from Gramineae?

5. State what you know of the ferments which occur in the cells of plants.

GEOLOGY, INCLUDING MINERALOGY.

MONDAY, 21*st March* 1898.—1 *to* 3 *o'clock.*

1. Mention some of the various ways in which Limestones have been formed.

2. Describe the cutting back of a sea-cliff, and show by what agents it is effected.

3. Give the characters of the following genera, and state the geological range of each:—*Mastodon*, *Lingula*, *Pentacrinus*, *Calymene*, *Sigillaria*, *Voltzia*.

4. How would you distinguish between Calcite and Barytes, Orthoclase and Quartz, Talc and Muscovite?

5. Give the petrographical characters, and state the mode of origin of Granite, Dolomite, Serpentine, Blackband-ironstone, Basalt, and Mica-schist.

6. In what respects do flows of acidic lava usually differ from flows of basic lava?

IV.—HISTORY AND LAW.

BRITISH HISTORY.

FIRST PAPER.

SATURDAY, *26th March* 1898.—12 *to* 2 *o'clock.*

N.B.—*Not more than* SEVEN *questions to be attempted, and not more than* FOUR *in either section.*

SECTION I.

1. Discuss the effects of the Roman Conquest on Britain, and the limits of the country affected.

2. Estimate the shares to be attributed to the Roman and Columban missionaries, respectively, in the establishment of Christianity in Britain.

3. Trace the changes which took place in the nature and privileges of the Anglo-Saxon nobility before the Norman Conquest.

4. Describe the chief stages in the establishment and growth of the Kingdom of Scotland down to the death of Malcolm Canmore.

5. What effect did the Norman Conquest produce (*a*) on the army, (*b*) the land, (*c*) the relations of classes, in England?

6. Draw a comparison between Anselm and Becket in respect of their characters and aims.

7. Sketch the relations between England and Scotland during the reign of William the Lion.

8. Describe the events and circumstances which led to the granting of Magna Carta.

SECTION II.

9. Describe the nature and results of Papal policy in England during the early years of Henry III.

10. What services did Alexander II and Alexander III perform for Scotland?

11. Simon de Montfort has been styled "the founder of the House of Commons." Examine his claim to this title.

12. Why did Edward I succeed against Wales, but fail against Scotland?

13. Describe, with the aid of plans, any *two* of the following battles—Lewes, Evesham, Stirling, Bannockburn.

14. What do you know of the Friars, the Knights Templars, the Statute of Gloucester, the Statute of Winchester, the Lords Ordainers?

SECOND PAPER.

SATURDAY, 26*th March* 1898.—3 *to* 5 *o'clock.*

N.B.—*Not more than* SEVEN *questions to be attempted. They should be taken from different parts of the paper.*

1. What reasons were put forward by Edward III for entering upon the French War, and what circumstances induced his people to support him heartily at first?

2. Describe the position of the English power in France at

the accession of Henry VI, and trace the series of events by which that position was lost.

3. Show how Scotland was in the first half of the sixteenth century a field of rivalry between England and France.

4. Bacon says of Henry VII: (1) He kept a strait hand on his nobility and chose rather to advance clergymen and lawyers. (2) His arms (either in foreign or civil wars) were never unfortunate. (3) To his confederates abroad he was constant and just. Illustrate these statements.

5. Account for the fall of Wolsey, *or* that of Somerset the Protector.

6. What were the causes of the rebellions in Ireland under Elizabeth? How were they suppressed, and what measures were adopted to prevent their recurrence?

7. Compare the position of affairs in Scotland on the occasion of the two visits of Charles I in 1633 and 1641.

8. What grounds were there for the Protestant alarm in the closing years of Charles II's reign?

9. Describe the conquest of Ireland by William III and the settlement he effected.

10. What important changes resulted to Scotland from the overthrow of the Jacobites in 1746?

11. What circumstances and events enabled Britain to succeed in outstripping all rival *native* powers in the contest for supremacy in India?

12. Give an outline of the Waterloo campaign, and illustrate by maps.

13. Describe the events which led to the establishment of Free Trade, and indicate the results which followed.

ART AND ARCHÆOLOGY.

FIRST PAPER—HISTORICAL.

FRIDAY, 25*th March* 1898.—3 *to* 5 P.M.

Not more than SEVEN *questions to be attempted.*

1. Give a clear account of the characteristic productions in art of the palæolithic and the neolithic epochs.

2. Describe the probable order of work in the construction of the Great Pyramid, and notice the chief materials employed therein. Give, as near as you can, its dimensions.

3. Through the agency of which peoples and by what routes did oriental artistic traditions influence Greece?

4. Enumerate in chronological order the chief masters of (*a*) the Attic, and (*b*) the Peloponnesian school of sculpture from Pheidias to Lysippus.

5. Describe the statue of Hermes with the child Dionysus, and justify its ascription to Praxiteles from its style and from the circumstances of its discovery.

6. What is known of the practice of painting among the Greeks? Enumerate the leading Greek painters, and discuss the accounts of their work which have come down to us.

7. Describe, from Theophilus, the process of making a silver chalice. How would such a chalice be ornamented?

8. It has been stated that Donatello emancipated sculpture from its dependence on architecture. Illustrate this from what you know of his sculpture, compared with that of his predecessors in France and Italy.

9. Give an account of Masaccio and his work, noticing its influence on later painters.

10. Write as full a description as you can of the "Last Supper" by Leonardo da Vinci.

11. What are the merits, and what the shortcomings, of early German painting, including that of Albrecht Dürer?

SECOND PAPER (CRITICAL AND TECHNICAL).

SATURDAY, 26*th March* 1898.—9 *to* 11 A.M.

Not more than SEVEN *questions to be attempted.*

1. The "commercial spirit" is often spoken of as inimical to art. Discuss this matter in the light of your knowledge of the arts in the past as well as in modern times.

2. Why is a period of great artistic vigour and success almost invariably followed by a period of decline?

3. In what respects and why is the decorative art of barbarous peoples often inferior to that of peoples like ourselves in an advanced stage of civilisation?

4. Write a critical note on the treatment of the head in the sculpture (*a*) of Pheidias, and (*b*) of Scopas and Praxiteles.

5. Give an account of the shape and use of the flying buttress, with its pier, in Gothic buildings, showing its place in their construction and their artistic effect.

6. Explain, with reference to the works of the great masters, the meaning of the term "breadth" in sculpture and painting.

7. Describe the technical process of work in fresco. What qualities in the finished production follow naturally from the nature of the process? Illustrate your answer from Michelangelo's painting on the roof of the Sistine Chapel.

8. Summarise Palma Giovine's description of Titian's technique in his later years, and contrast it with what you know of the practice of Hals and Velasquez.

9. Indicate and account for the position held in Germany by engraving, as compared with the position of the same art in Italy.

10. Explain the terms—*Order*, in architecture; *champlevé*; *glazing*, in painting; *miniature*; *repoussé*; *genre*.

11. What are the chief features of interest about the church on the plan of St. Gall?

CONSTITUTIONAL LAW AND HISTORY—
ROMAN LAW—PUBLIC LAW.

See Papers under Faculty of Law.

Examination Papers for Degree of M.A. with Honours.

(A)—CLASSICS.

LATIN.

MONDAY, 28*th March* 1898.—9 *to* 12 *o'clock.*

Translate:—

1. Abiit hercle ille. ecquid audis, Lusiteles? ego te uolo.
hic quoque hinc abiit. Stasime, restas solus: quid ego nunc agam
nisi uti sarcinam constringam et clupeum ad dorsum accommodem,
fulmentas iubeam suppingi soccis? non sisti potest.
video caculam militarem me futurum hau longius.
atque aliquem ad regem in saginam [quom] erus se coniexit meus,
credo ad summos bellatores acrem—fugitorem fore,
et capturum ibi spolia illum qui—meo ero aduorsus uenerit.
egomet quom extemplo arcum et pharetram mi et sagittas sumpsero,
cassidem in caput—dormibo placidule in tabernaculo.
ad forum ibo: nudius sextus quoi talentum mutuom
dedi reposcam, ut habeam mecum quod feram uiaticum.

2. Inque dies magis in montem succedere silvas
cogebant infraque locum concedere cultis,

prata lacus rivos segetes vinetaque laeta
collibus et campis ut haberent atque olearum
caerula distinguens inter plaga currere posset
per tumulos et convallis camposque profusa ;
ut nunc esse vides vario distincta lepore
omnia, quae pomis intersita dulcibus ornant
arbustisque tenent felicibus opsita circum.
At liquidas avium voces imitarier ore
ante fuit multo quam levia carmina cantu
concelebrare homines possent aurisque iuvare.
et zephyri, cava per calamorum, sibila primum
agrestis docuere cavas inflare cicutas.
inde minutatim dulcis didicere querellas,
tibia quas fundit digitis pulsata canentum,
avia per nemora ac silvas saltusque reperta,
per loca pastorum deserta atque otia dia.

3. Nam Catonem nostrum non tu amas plus quam ego, sed tamen ille optimo animo utens et summa fide nocet interdum rei publicae. dicit enim tamquam in Platonis πολιτείᾳ, non tamquam in Romuli faece, sententiam. quid verius quam in iudicium venire qui ob rem iudicandam pecuniam acceperit? censuit hoc Cato : adsensit senatus. equites curiae bellum, non mihi : nam ego dissensi. quid impudentius publicanis renuntiantibus? fuit tamen retinendi ordinis causa facienda iactura. restitit et pervicit Cato. itaque nunc consule in carcere incluso, saepe item seditione commota, aspiravit nemo eorum, quorum ego concursu itemque ii consules, qui post me fuerunt, rem publicam defendere solebant. quid ergo? istos, inquies, mercede conductos habebimus? quid faciemus, si aliter non possumus? an libertinis atque etiam servis serviemus? sed, ut tu ais, ἄλις σπουδῆς.

4. Quos rami fructus, quos ipsa volentia rura
sponte tulere sua carpsit ; nec ferrea jura

insanumque forum aut populi tabularia vidit.
sollicitant alii remis freta caeca ruuntque
in ferrum; penetrant aulas et limina regum:
hic petit excidiis urbem miserosque Penatis,
ut gemma bibat et Sarrano indormiat ostro:
condit opes alius defossoque incubat auro.
hic stupet attonitus rostris: hunc plausus hiantem
per cuneos geminatus enim plebisque patrumque
corripuit. gaudent perfusi sanguine fratrum
exsilioque domos et dulcia limina mutant
atque alio patriam quaerunt sub solen jacentem.
5. atque hic auratis volitans argenteus anser,
porticibus Gallos in limine adesse canebat:
Galli per dumos aderant arcemque tenebant,
defensi tenebris et dono noctis opacae:
aurea caesaries ollis atque aurea vestis;
virgatis lucent sagulis; tum lactea colla
auro innectuntur; duo quisque Alpina coruscant
gaesa manu, scutis protecti corpora longis.
hic exsultantis Salios nudosque Lupercos
lanigerosque apices et lapsa ancilia caelo
extuderat: castae ducebant sacra per urbem
pilentis matres in mollibus.
6. Difficile est proprie communia dicere; tuque
rectius Iliacum carmen deducis in actus,
quam si proferres ignota indictaque primus.
publica materies privati juris erit, si
non circa vilem patulumque moraberis orbem,
nec verbum verbo curabis reddere fidus
interpres, nec desilies imitator in artum,
unde pedem proferre pudor vetet aut operis lex.
7. Tunc omne Latinum
fabula nomen erit: Gabios Veiosque Coramque

puluere uix tectae poterunt monstrare ruinae,
Albanosque lares Laurentinosque penates
rus uacuom, quod non habitet, nisi nocte coacta,
inuitus, questusque Numam iussisse, senator.
non aetas haec carpsit edax monumentaque rerum
putria destituit: crimen ciuile uidemus
tot uacuas urbes. generis quo turba redacta est
humani? toto populi qui nascimur orbe,
nec muros implere uiris nec possumus agros:
urbs nos una capit: uincto fossore coluntur
Hesperiae segetes: stat tectis putris auitis
in nullos ruitura domus: nulloque frequentem
ciue suo Romam, sed mundi faece repletam,
cladis eo dedimus, ne tanto in tempore bellum
iam posset ciuile geri.

8. Quin immo sibi persuaserant neminem sine eloquentia aut adsequi posse in ciuitate aut tueri conspicuum et eminentem locum. nec mirum, cum etiam inviti ad populum producerentur, cum parum esset in senatu breviter censere, nisi qui ingenio et eloquentia sententiam suam tuerentur, cum in aliquam invidiam aut crimen vocati sua voce respondendum haberent, cum testimonia quoque in *iudiciis* publicis non absentes nec per tabellam dare, sed coram et praesentes dicere cogerentur. ita ad summa eloquentiae praemia magna etiam necessitas accedebat, et quo modo disertum haberi pulchrum et gloriosum, sic contra mutum et elinguem videri deforme habebatur.

9. Agrippina semper atrox, tum et periculo propinquae accensa, pergit ad Tiberium ac forte sacrificantem patri repperit. quo initio invidiae non eiusdem ait mactare divo Augusto victimas et posteros eius insectari. non in effigies mutas divinum spiritum transfusum: se imaginem veram, caelesti sanguine ortam, intellegere discrimen, suscipere sordes. frustra Pulchram praescribi, cui sola exitii causa sit quod Agrippinam stulte

prorsus ad cultum delegerit, oblita Sosiae ob eadem adflictae. audita haec raram occulti pectoris vocem elicuere, correptamque Graeco versu admonuit non ideo laedi, quia non regnaret.

GREEK.

PRESCRIBED BOOKS.

MONDAY, 28*th March* 1898.—2 *to* 5 *o'clock.*

Translate:—

(1) ὁ δ' ἤδη τόξον ἐνώμα
πάντῃ ἀναστρωφῶν, πειρώμενος ἔνθα καὶ ἔνθα,
μὴ κέρα ἶπες ἔδοιεν ἀποιχομένοιο ἄνακτος.
ὧδε δέ τις εἶπεσκεν ἰδὼν ἐς πλησίον ἄλλον·
"Ἦ τις θητὴρ καὶ ἐπίκλοπος ἔπλετο τόξων·
ἤ ῥά νύ που τοιαῦτα καὶ αὐτῷ οἴκοθι κεῖται,
ἦ ὅγ' ἐφορμᾶται ποιησέμεν, ὡς ἐνὶ χερσὶν
νωμᾷ ἔνθα καὶ ἔνθα κακῶν ἔμπαιος ἀλήτης."
Ἄλλος δ' αὖτ' εἶπεσκε νέων ὑπερηνορεόντων
"αἶ γὰρ δὴ τοσσοῦτον ὀνήσιος ἀντιάσειεν
ὡς οὗτός ποτε τοῦτο δυνήσεται ἐντανύσασθαι
Ὣς ἄρ' ἔφαν μνηστῆρες· ἀτὰρ πολύμητις Ὀδυσσεύς,
αὐτίκ' ἐπεὶ μέγα τόξον ἐβάστασε καὶ ἴδε πάντῃ,
ὡς ὅτ' ἀνὴρ φόρμιγγος ἐπιστάμενος καὶ ἀοιδῆς
ῥηϊδίως ἐτάνυσσε νέῳ περὶ κόλλοπι χορδήν,
ἄψας ἀμφοτέρωθεν ἐϋστρεφὲς ἔντερον οἰός,
ὣς ἄρ' ἄτερ σπουδῆς τάνυσεν μέγα τόξον Ὀδυσσεύς.
δεξιτερῇ δ' ἄρα χειρὶ λαβὼν πειρήσατο νευρῆς·
ἡ δ' ὑπὸ καλὸν ἄεισε, χελιδόνι εἰκέλη αὐδήν.

HOMER, *Odyssey*, xxi. 393-411.

(2) τούτῳ δὲ δῆλον ὡς γυνὴ κακὸν μέγα·
προσθεὶς γὰρ ὁ σπείρας τε καὶ θρέψας πατὴρ
φερνὰς ἀπῴκισ', ὡς ἀπαλλαχθῇ κακοῦ·

ὁ δ' αὖ λαβὼν ἀτηρὸν εἰς δόμους φυτὸν
γέγηθε κόσμον προστιθεὶς ἀγάλματι
καλὸν κακίστῳ καὶ πέπλοισιν ἐκπονεῖ
δύστηνος, ὄλβον δωμάτων ὑπεξελών.
ἔχει δ' ἀνάγκην, ὥστε κηδεύσας καλοῖς
γαμβροῖσι χαίρων σώζεται πικρὸν λέχος,
ἢ χρηστὰ λέκτρα, πενθεροὺς δ' ἀνωφελεῖς
λαβὼν πιέζει τἀγαθῷ τὸ δυστυχές.
ῥᾷστον δ' ὅτῳ τὸ μηδέν, ἀλλ' ἀνωφελὴς
εὐηθίᾳ κατ' οἶκον ἵδρυται γυνή.

EURIPIDES, *Hippolytus*, 628-639.

(3) ὅταν γὰρ ἡβᾷ δῆμος εἰς ὀργὴν πεσών,
ὅμοιον ὥστε πῦρ κατασβέσαι λάβρον·
εἰ δ' ἡσύχως τις αὐτὸς ἐντείνοντι μὲν
χαλῶν ὑπείκοι καιρὸν εὐλαβούμενος,
ἴσως ἂν ἐκπνεύσειεν· ἢν δ' ἀνῇ πνοᾶς,
τύχοις ἂν αὐτοῦ ῥᾳδίως ὅσον θέλεις.
ἔνεστι δ' οἶκτος, ἔνι δὲ καὶ θυμὸς μέγας,
καραδοκοῦντι κτῆμα τιμιώτατον.
ἐλθὼν δὲ Τυνδάρεών τέ σοι πειράσομαι
πόλιν τε πεῖσαι τῷ λίαν χρῆσθαι καλῶς.

EURIPIDES, *Orestes*, 696-705.

(4) καλῶς ἐχόντων τῶν νόμων, ὦ ἄνδρες δικασταί, τῶν ὑπαρχόντων, ὅδε ὁ νῦν ἀναγνωσθεὶς νόμος ὥσπερεὶ διώρισε καὶ βεβαιοτέρους ἐποίησεν αὐτούς. κελεύει γὰρ ἕκαστον ἀφ' ἧς ἡμέρας ἐτέθη κύριον εἶναι, πλὴν εἴ τῳ χρόνος προσγέγραπται, τούτῳ δὲ τὸν γεγραμμένον ἄρχειν. διὰ τί; ὅτι πολλοῖς τῶν νόμων προσεγέγραπτο "τὸν δὲ νόμον εἶναι κύριον τόνδ' ἀπὸ τοῦ μετὰ τὸν νῦν ἄρχοντα." ὕστερον δὲ γράφων ὁ τιθεὶς ἐπὶ τούτοις τόνδε τὸν νόμον, τὸν ἀνεγνωσμένον, οὐκ ἐνόμιζε δίκαιον εἶναι τοὺς αὐτοὺς τῶν νόμων ἀναγεγραμμένους ὕστερον ἢ ἐτέθησαν κυρίους εἶναι ἀνενεγκεῖν ἐπὶ τὴν ἡμέραν, ἀφ' ἧς ἐτέθησαν, καὶ πρότερον ποιῆσαι κυρίους ἢ ὁ θεὶς ἕκαστον ἠξίωσεν. τούτῳ μέντοι τῷ νόμῳ σκέψασθε ὡς ἐναντίος ἐστὶν ὃν οὗτος

τέθεικεν. ὁ μέν γε κελεύει τὸν γεγραμμένον χρόνον ἢ τὴν ἡμέραν ἀφ' ἧς ἂν τεθῇ κυρίαν εἶναι· ὁ δ' ἔγραψεν "καὶ εἴ τινι προστετίμηται" περὶ τῶν παρεληλυθότων λέγων. καὶ οὐδὲ τοῦθ' ὥρισεν, ἄρχοντα προσγράψας ἀφ' οὗ, ἀλλὰ πεποίηκεν οὐ μόνον πρὸ τῆς ἡμέρας ἐν ᾗ τέθεικε κύριον τὸν νόμον, ἀλλὰ καὶ πρὸ τοῦ γενέσθαι τινὰ ἡμῶν· ἀόριστον γὰρ ἅπαντα τὸν παρεληλυθότα προσπεριείληφε χρόνον. καίτοι χρῆν σε, ὦ Τιμόκρατες, ἢ τοῦτον μὴ γράφειν ἢ ἐκεῖνον λύειν, οὐχ, ἵνα ὃ βούλει σὺ γένηται, πάντα τὰ πράγματα συνταράξαι.

DEMOSTHENES, *Timocr.* (xxiv.) §§ 43-44.

(5) ταῦτα μέντοι δεῖ σκοπουμένους ἀπιστεῖν καὶ μὴ τετυφῶσθαι, μηδ' ὡς εὐεργέτῃ προσέχειν τὸν νοῦν. οὐ γὰρ ὢν ἀναγκαζόμενος φίλος εἶναί φησι, φενακίζων ὑμᾶς, χάριν ἐστὶ δίκαιον ὀφείλειν Κερσοβλέπτῃ, οὐδ' ὢν μικρὰ ἀναλίσκων ἰδίᾳ καὶ τοῖς στρατηγοῖς καὶ τοῖς ῥήτορσι Χαρίδημος διαπράττεται πρὸς ὑμᾶς ἐπαίνους αὐτοῦ γράφεσθαι· ἀλλ' ὢν, ὁσαχοῦ κύριος γέγονε τοῦ πράττειν ὅ τι βούλεται, πανταχοῦ κακῶς ἐπιχειρῶν ἡμᾶς ποιεῖν φαίνεται, τούτων πολὺ μᾶλλον ὀργίζεσθαι προσήκει.

DEMOSTHENES, *Aristocrat.* (xxiii.) § 184.

(6) Ἐπεὶ οὖν ἡ παροῦσα πραγματεία οὐ θεωρίας ἕνεκά ἐστιν ὥσπερ αἱ ἄλλαι (οὐ γὰρ ἵν' εἰδῶμεν τί ἐστιν ἡ ἀρετὴ σκεπτόμεθα, ἀλλ' ἵν' ἀγαθοὶ γενώμεθα, ἐπεὶ οὐδὲν ἂν ἦν ὄφελος αὐτῆς), ἀναγκαῖόν ἐστι σκέψασθαι τὰ περὶ τὰς πράξεις, πῶς πρακτέον αὐτάς· αὗται γάρ εἰσι κύριαι καὶ τοῦ ποιὰς γενέσθαι τὰς ἕξεις, καθάπερ εἰρήκαμεν. τὸ μὲν οὖν κατὰ τὸν ὀρθὸν λόγον πράττειν κοινὸν καὶ ὑποκείσθω, ῥηθήσεται δ' ὕστερον περὶ αὐτοῦ, καὶ τί ἐστιν ὁ ὀρθὸς λόγος, καὶ πῶς ἔχει πρὸς τὰς ἄλλας ἀρετάς. ἐκεῖνο δὲ προδιομολογείσθω, ὅτι πᾶς ὁ περὶ τῶν πρακτῶν λόγος τύπῳ καὶ οὐκ ἀκριβῶς ὀφείλει λέγεσθαι, ὥσπερ καὶ κατ' ἀρχὰς εἴπομεν ὅτι κατὰ τὴν ὕλην οἱ λόγοι ἀπαιτητέοι· τὰ δ' ἐν ταῖς πράξεσι καὶ τὰ συμφέροντα οὐδὲν ἑστηκὸς ἔχει, ὥσπερ οὐδὲ τὰ ὑγιεινά. τοιούτου δ' ὄντος τοῦ καθόλου λόγου, ἔτι μᾶλλον ὁ περὶ τῶν καθ' ἕκαστα λόγος οὐκ ἔχει τἀκριβές· οὔτε γὰρ ὑπὸ τέχνην οὔθ' ὑπὸ παραγγελίαν οὐδεμίαν πίπτει, δεῖ δ'

αὐτοὺς ἀεὶ τοὺς πράττοντας τὰ πρὸς τὸν καιρὸν σκοπεῖν, ὥσπερ καὶ ἐπὶ τῆς ἰατρικῆς ἔχει καὶ τῆς κυβερνητικῆς. ἀλλὰ καίπερ ὄντος τοιούτου τοῦ παρόντος λόγου πειρατέον βοηθεῖν.

ARISTOTLE, *Ethics*, ii. 2, §§ 1-5.

(7) *Δευτέρως δ' ὁ κατὰ τὴν ἄλλην ἀρετήν· αἱ γὰρ κατ' αὐτὴν ἐνέργειαι ἀνθρωπικαί· δίκαια γὰρ καὶ ἀνδρεῖα καὶ ἄλλα τὰ κατὰ τὰς ἀρετὰς πρὸς ἀλλήλους πράττομεν ἐν συναλλάγμασι καὶ χρείαις καὶ πράξεσι παντοίαις ἔν τε τοῖς πάθεσι διατηροῦντες τὸ πρέπον ἑκάστῳ. ταῦτα δ' εἶναι φαίνεται πάντα ἀνθρωπικά. ἔνια δὲ καὶ συμβαίνειν ἀπὸ τοῦ σώματος δοκεῖ, καὶ πολλὰ συνῳκειῶσθαι τοῖς πάθεσιν ἡ τοῦ ἤθους ἀρετή. συνέζευκται δὲ καὶ ἡ φρόνησις τῇ τοῦ ἤθους ἀρετῇ, καὶ αὕτη τῇ φρονήσει, εἴπερ αἱ μὲν τῆς φρονήσεως ἀρχαὶ κατὰ τὰς ἠθικάς εἰσιν ἀρετάς, τὸ δ' ὀρθὸν τῶν ἠθικῶν κατὰ τὴν φρόνησιν.*

ARISTOTLE, *Ethics*, x. 8, §§ 1-3.

Add very brief notes where you think them needed to bring out the argument.

UNSEEN PASSAGES.

TUESDAY, 29*th March* 1898.—9 *to* 12 *o'clock.*

Translate :—

(1) *κούρην δ' ἐξ ἀχέων ἀδινὸς κατελώφεεν ὕπνος*
λέκτρῳ ἀνακλινθεῖσαν. ἄφαρ δέ μιν ἠπεροπῆες,
οἷά τ' ἀκηχεμένην, ὀλοοὶ ἐρέθεσκον ὄνειροι.
τὸν ξεῖνον δ' ἐδόκησεν ὑφεστάμεναι τὸν ἄεθλον,
οὔτι μάλ' ὁρμαίνοντα δέρος κριοῖο κομίσσαι,
οὐ δέ τι τοῖο ἔκητι μετὰ πτόλιν Αἰήταο
ἐλθέμεν, ὄφρα δέ μιν σφέτερον δόμον εἰσαγάγοιτο
κουριδίην παράκοιτιν· ὀίετο δ' ἀμφὶ βόεσσιν
αὐτὴ ἀεθλεύουσα μάλ' εὐμαρέως πονέεσθαι·
σφωιτέρους δὲ τοκῆας ὑποσχεσίης ἀθερίζειν,
οὕνεκεν οὐ κούρῃ ξεῦξαι βόας, ἀλλά οἱ αὐτῷ
προύθεσαν. ἐκ δ' ἄρα τοῦ νεῖκος πέλεν ἀμφήριστον

πατρί τε καὶ ξείνοις· αὐτῇ δ' ἐπιέτρεπον ἄμφω
τὼς ἔμεν, ὥς κεν ἔῃσι μετὰ φρεσὶν ἰθύσειεν.
ἣ δ' ἄφνω τὸν ξεῖνον, ἀφειδήσασα τοκήων,
εἵλετο· τοὺς δ' ἀμέγαρτον ἄχος λάβεν, ἐκ δ' ἐβόησαν
χωόμενοι· τὴν δ' ὕπνος ἅμα κλαγγῇ μεθέηκεν·
παλλομένη δ' ἀνόρουσε φόβῳ, περί τ' ἀμφί τε τοίχους
πάπτηνεν θαλάμοιο· μόλις δ' ἐσαγείρατο θυμὸν
ὡς πάρος ἐν στέρνοις, ἀδινὴν δ' ἀνενείκατο φωνήν·
"δειλὴ ἐγὼν, οἷόν με βαρεῖς ἐφόβησαν ὄνειροι.
δείδια, μὴ μέγα δή τι φέρῃ κακὸν ἥδε κέλευθος
ἡρώων. περί μοι ξείνῳ φρένες ἠερέθονται.
μνάσθω ἐὸν κατὰ δῆμον Ἀχαιΐδα τηλόθι κούρην·
ἄμμι δὲ παρθενίη τε μέλοι καὶ δῶμα τοκήων."

APOLLON. RHOD. iii. 616-640.

(2) κᾆτα δ' ὡς ἐκ τῶν ἀγρῶν ξυνῆλθεν οὐργάτης λεώς,
τὸν τρόπον πωλούμενος τὸν αὐτὸν οὐκ ἐμάνθανεν,
ἀλλ' ἄτ' ὢν ἄνευ γιγάρτων καὶ φιλῶν τὰς ἰσχάδας
ἔβλεπεν πρὸς τοὺς λέγοντας· οἱ δὲ γιγνώσκοντες εὖ
τοὺς πένητας ἀσθενοῦντας κἀποροῦντας ἀλφίτων,
τήνδε μὲν δικροῖς ἐώθουν τὴν θεὸν κεκράγμασιν,
πολλάκις φανεῖσαν αὐτὴν τῆσδε τῆς χώρας πόθῳ,
τῶν δὲ συμμάχων ἔσειον τοὺς παχεῖς καὶ πλουσίους,
αἰτίας ἂν προστιθέντες, ὡς φρονοῖ τὰ Βρασίδου.
εἶτ' ἂν ὑμεῖς τοῦτον ὥσπερ κυνίδι' ἐσπαράττετε·
ἡ πόλις γὰρ ὠχριῶσα κἀν φόβῳ καθημένη
ἅττα διαβάλοι τις αὐτῇ, ταῦτ' ἂν ἤδιστ' ἤσθιεν.
οἱ δὲ τὰς πληγὰς ὁρῶντες ἃς ἐτύπτονθ', οἱ ξένοι
χρυσίῳ τῶν ταῦτα ποιούντων ἐβύνουν τὸ στόμα,
ὥστ' ἐκείνους μὲν ποιῆσαι πλουσίους, ἡ δ' Ἑλλὰς ἂν
ἐξερημωθεῖσ' ἂν ὑμᾶς ἔλαθε. ταῦτα δ' ἦν ὁ δρῶν
βυρσοπώλης. ARISTOPHANES, *Peace* 632-648.

(3) παρεσκευασμένοι δὲ πάντα ἔπλεον ἐς τὴν Ἑλλάδα, προσίσχοντες δὲ αὐτῆς τὰ παραθαλάσσια ἐθηεῦντο καὶ ἀπεγράφοντο,

ἐς ὃ τὰ πολλὰ αὐτῆς καὶ ὀνομαστὰ θεησάμενοι ἀπίκοντο τῆς Ἰταλίης ἐς Τάραντα. ἐνθαῦτα δὲ ἐκ ῥηστώνης τῆς Δημοκήδεος Ἀριστοφιλίδης τῶν Ταραντίνων ὁ βασιλεὺς τοῦτο μὲν τὰ πηδάλια παρέλυσε τῶν Μηδικέων νεῶν, τοῦτο δὲ αὐτοὺς τοὺς Πέρσας εἶρξε ὡς κατασκόπους δῆθεν ἐόντας. ἐν ᾧ δὲ οὗτοι ταῦτα ἔπασχον, ὁ Δημοκήδης ἐς τὴν Κρότωνα ἀπικνέεται· ἀπιγμένου δὲ ἤδη τούτου ἐς τὴν ἑωυτοῦ ὁ Ἀριστοφιλίδης ἔλυσε τοὺς Πέρσας, καὶ τὰ παρέλαβε τῶν νεῶν ἀπέδωκέ σφι. πλέοντες δὲ ἐνθεῦτεν οἱ Πέρσαι καὶ διώκοντες Δημοκήδεα ἀπικνέονται ἐς τὴν Κρότωνα, εὑρόντες δέ μιν ἀγοράζοντα ἅπτοντο αὐτοῦ. τῶν δὲ Κροτωνιητέων οἱ μὲν καταρρωδέοντες τὰ Περσικὰ πρήγματα προϊέναι ἑτοῖμοι ἦσαν, οἱ δὲ ἀντάπτοντο καὶ τοῖσι σκυτάλοισι ἔπαιον τοὺς Πέρσας προϊσχομένους ἔπεα τάδε· Ἄνδρες Κροτωνιῆται, ὁρᾶτε τὰ ποιέετε· ἄνδρα βασιλέος δρηπέτην γενόμενον ἐξαιρέεσθε. κῶς ταῦτα βασιλέι Δαρείῳ ἐκχρήσει περιυβρίσθαι; κῶς δὲ ὑμῖν τὰ ποιεύμενα ἕξει καλῶς, ἢν ἀπέλησθε ἡμέας; ἐπὶ τίνα δὲ τῇσδε προτέρην στρατευσόμεθα πόλιν; τίνα δὲ προτέρην ἀνδραποδίζεσθαι πειρησόμεθα; ταῦτα λέγοντες τοὺς Κροτωνιήτας οὔκων ἔπειθον, ἀλλ' ἐξαιρεθέντες τε τὸν Δημοκήδεα καὶ τὸν γαῦλον τὸν ἅμα ἦγοντο ἀπαιρεθέντες, ἀπέπλεον ὀπίσω ἐς τὴν Ἀσίην, οὐδ' ἔτι ἐζήτησαν τὸ προσωτέρω τῆς Ἑλλάδος ἀπικόμενοι ἐκμαθεῖν, ἐστερημένοι τοῦ ἡγεμόνος. τοσόνδε μέντοι ἐνετείλατό σφι Δημοκήδης ἀναγομένοισι, κελεύων εἰπεῖν σφέας Δαρείῳ, ὅτι ἅρμοσται τὴν Μίλωνος θυγατέρα Δημοκήδης γυναῖκα. τοῦ γὰρ δὴ παλαιστέω Μίλωνος ἦν οὔνομα πολλὸν παρὰ βασιλέι. κατὰ δὲ τοῦτό μοι δοκέει σπεῦσαι τὸν γάμον τοῦτον τελέσας χρήματα μεγάλα Δημοκήδης, ἵνα φανῇ πρὸς Δαρείου ἐὼν καὶ ἐν τῇ ἑωυτοῦ δόκιμος. HERODOTUS iii. 136, 137.

(4) πῶς οὖν δὴ τοῦτο πιστόν, καὶ κατὰ τί λείψανον τῆς τότε γῆς ὀρθῶς ἂν λεγοιτο; πᾶσα ἀπὸ τῆς ἄλλης ἠπείρου μακρὰ προτείνουσα εἰς τὸ πέλαγος οἷον ἄκρα κεῖται· τὸ δὴ τῆς θαλάσσης ἀγγεῖον περὶ αὐτὴν τυγχάνει πᾶν ἀγχιβαθὲς ὄν. πολλῶν οὖν γεγονότων καὶ μεγάλων κατακλυσμῶν ἐν τοῖς ἐννακισχιλίοις ἔτεσι (τοσαῦτα γὰρ πρὸς τὸν νῦν ἀπ' ἐκείνου τοῦ χρόνου γέγονεν ἔτη) τὸ τῆς γῆς ἐν

τούτοις τοῖς χρόνοις καὶ πάθεσιν ἐκ τῶν ὑψηλῶν ἀποῤῥέον οὔτε χῶμα, ὡς ἐν ἄλλοις τόποις, προχοὶ λόγου ἄξιον ἀεί τε κύκλῳ περιῤῥέον εἰς βάθος ἀφανίζεται. λέλειπται δή, καθάπερ ἐν ταῖς σμικραῖς νήσοις, πρὸς τὰ τότε τὰ νῦν οἷον νοσήσαντος σώματος ὀστᾶ, περιερῥυηκυίας τῆς γῆς ὅση πίερα καὶ μαλακή, τοῦ λεπτοῦ σώματος τῆς χώρας μόνου λειφθέντος. τότε δὲ ἀκέραιος οὖσα τά τε ὄρη γηλόφους ὑψηλοὺς εἶχε, καὶ τὰ Φελλέως νῦν ὀνομασθέντα πεδία πλήρη γῆς πιείρας ἐκέκτητο, καὶ πολλὴν ἐν τοῖς ὄρεσιν ὕλην εἶχεν, ἧς καὶ νῦν ἔτι φανερὰ τεκμήρια. τῶν γὰρ ὀρῶν ἐστιν ἃ νῦν μὲν ἔχει μελίτταις μόναις τροφήν, χρόνος δ' οὐ πάμπολυς ὅτε δένδρων αὐτόθεν εἰς οἰκοδομήσεις τὰς μεγίστας ἐρεψίμων τμηθέντων στεγάσματ' ἐστὶν ἔτι σᾶ. πολλὰ δ' ἦν ἄλλ' ἥμερα ὑψηλὰ δένδρα, νομὴν δὲ βοσκήμασιν ἀμήχανον ἔφερε. PLATO, *Critias* 111, A.-C.

LATIN.

TUESDAY, 29*th March* 1898.—2 *to* 5 *o'clock.*

I.

Translate with short explanatory or critical notes:—

1. Tum autem Surorum, genus quod patientissumumst hominum, nemo exstat qui ibi sex menses vixerit: ita cuncti solstitiali morbo decidunt.

2. PAL. iubemus te salvere, mater. PTOL. salvete puellae. set unde
ire vos cum uvida veste dicam, obsecro,
tam maestiter vestitas?
Give the scansion of this passage.

3. TR. Non probare pernegando mihi potes, nisi pars datur aut ad arbitrum reditur aut sequestro ponitur.
Give the scansion.

4. Et ratione pari lunam stellasque putandum est,
quae volvunt magnos in magnis orbibus annos,
aeribus posse alternis e partibus ire.

5. Menstrua dum rigidas coni perlabitur umbras.

6. Sactigerisque pares subus silvestria membra
nudabant terrae nocturno tempore capti.

Correct the MS. reading.

7. Primum igitur scito primum me non esse rogatum sententiam praepositumque nobis esse pacificatorem Allobrogum.

8. Nunc vero, Sampsicerame, quid dices? vectigal te nobis in monte Antilibano constituisse, agri Campani abstulisse? quid? hoc quem ad modum obtinebis?

9. Audio omnino Scaptium paenitere; nam quod senatus consultum esse dicebat, ut ius ex syngrapha diceretur, eo consilio factum est, quod pecuniam Salaminii contra legem Gabiniam sumpserant.

10. hos tibi dant calamos, en accipe, Musae
Ascraeo quos ante seni.

11. Delitui dum vela darent si forte dedissent.

12. Tune hinc spoliis indute meorum
eripiare mihi?

13. Recte necne crocum floresque perambulet Attae
fabula si dubitem, clament periisse pudorem
cuncti paene patres.

14. Carmina compono, hic elegos: 'mirabile visu
caelatumque novem Musis opus!'

15. Nec sic incipies ut scriptor cyclicus olim:
'Fortunam Priami cantabo et nobile bellum.'

16. Scilicet ipse petet Pholoen petet ignibus Oeten
immeritaeque nemus Rhodopes pinusque *minantis*
casus hoc potius *feriat* caput.

Correct the MS. reading.

17. Heu quantum poenae misero mens conscia donat,
quod Styga, quod manes, ingestaque Tartara somnis
Pompeio vivente videt.

18. Statuarque tumulo non maestus et atrox, sed hilaris et coronatus, et pro memoria mei nec consulat quisquam nec roget.

19. Quotus enim quisque scholasticorum non hac sua persuasione fruitur, ut se ante Ciceronem numeret, sed plane post Gabinianum?

20. Servos quoque Silani, ut tormentis interrogarentur, actor publicus mancipio acceperat.

21. Causa motus, super hominum ingenium, quod pati dilectus et validissimum quemque militiae nostrae dare aspernabantur.

22. Primusque Messala Corvinus eam potestatem et paucos intra dies finem accepit, quasi nescius exercendi.

II.

Three questions should be attempted in each group.

Literature.

1. 'In argumentis Caecilius poscit palmam, in ἤθεσιν Terentius, in sermonibus Plautus.' (Varro.)

Discuss this criticism.

2. What are the characteristics of the Hexameter in the hands of Lucretius? Indicate his position in the development of the verse.

3. 'Virgil was the originator of the romantic form of Epic Poetry.'

'There is no chivalry in Virgil.'

Discuss these opinions.

4. Indicate the sympathies and antipathies of Horace in matters of literary criticism.

5. Sketch shortly the growth of the Historical Epos at Rome, and describe in particular the manner in which Lucan handles his subject in the *Pharsalia*.

6. Compare the style of the *Dialogue* and the *Annals*, and consider whether there are any valid reasons for doubting the Tacitean authorship of the former.

History.

1. Give some account of the Assemblies of the Plebs and their acquisition of power.

2. Describe the status and the grievances of the Italian allies at the outbreak of the Social War. How far were the grievances redressed as the result of that war?

3. Mention the chief provisions of the *Leges Juliae* of 59 B.C.

4. What was the extent of Rome's possessions in Asia at the close of the Republic, and how had these possessions been acquired?

5. Describe the position and privileges of the Equites (*a*) in the later Republic, (*b*) under the Empire.

6. What were the main lines of Augustus's foreign policy, and how far were they observed by his successor?

LATIN.

Wednesday, 30*th March* 1898.—9 *to* 12 *o'clock.*

For Latin Prose:—

Beyond the Alps, more especially at Avignon, the revolution was the theme of curiosity, wonder, and applause. Petrarch had been the private friend, perhaps the secret counsellor of Rienzi; his writings breathe the most ardent spirit of patriotism and joy: and all respect for the Pope, all gratitude for the Colonna, was lost in the superior duties of a Roman citizen. The poet-laureat of the Capitol maintains the act, applauds the hero, and mingles with some apprehension and advice the most lofty hopes of the permanent and rising greatness of the Republic.

While Petrarch indulged these visions, the Roman hero was fast declining from the meridian of fame and power; and the people, who had gazed with astonishment on the ascending meteor, began to mark the irregularity of its course, and the

vicissitudes of its light and obscurity. More eloquent than judicious, more enterprising than resolute, the faculties of Rienzi were not balanced by cool and commanding reason; he magnified, in a tenfold proportion, the objects of hope and fear; and prudence, which could not have erected, did not presume to fortify, his throne. In the blaze of prosperity, his virtues were insensibly tinctured with the adjacent vices; justice with cruelty, liberality with profusion, and the desire of fame with puerile and ostentatious vanity. He might have learned that the ancient tribunes, so strong and sacred in the public opinion, were not distinguished in style, habit, or appearance from an ordinary plebeian; and that, as often as they visited the city on foot, a single beadle attended the exercise of their office. The Gracchi would have frowned or smiled, could they have read the sonorous titles and epithets of their successor. His theatrical pageants had prepared the revolution, but Rienzi abused, in luxury and pride, the political maxim of speaking to the eyes, as well as the understandings, of the multitude.

(Gibbon.)

GREEK.—General Paper.

Wednesday, 30*th March* 1898.—2 *to* 5 *o'clock.*

I. Translate, with notes on Homeric syntax:—

(1) ὡς δ' ὅτ' ἀνὴρ δόρποιο λιλαίεται, ᾧτε πανῆμαρ
νειὸν ἀν' ἕλκητον βόε οἴνοπε πηκτὸν ἄροτρον.

(2) ὀπτήσας δ' ἄρα πάντα φέρων παρέθηκ' Ὀδυσῆϊ
θέρμ' αὐτοῖς ὀβελοῖσιν.

(3) βίοτον δ' αὐτοὶ καὶ κτήματ' ἔχωμεν,
δασσάμενοι κατὰ μοῖραν ἐφ' ἡμέας, οἰκία δ' αὖτε
κείνου μητέρι δοῖμεν ἔχειν ἠδ' ὅστις ὀπυίοι.

(4) τόν ποτ' ἐγὼν ἐπὶ νηὸς ἐϋσσέλμοιο μελαίνης
ἄξω τῆλ' Ἰθάκης, ἵνα μοι βίοτον πολὺν ἄλφοι.

(5) τῶν ἕνεκ' ἐξεσίην πολλὴν ὁδὸν ἦλθεν Ὀδυσσεύς.
(6) ποῖοί κ' εἶτ' Ὀδυσῆϊ ἀμυνέμεν, εἴ ποθεν ἔλθοι;

II. Translate, with comments on points of reading or of syntax:—

(1) ἤδη νυν αὔχει καὶ δι' ἀψύχου βορᾶς
σίτοις καπήλευ', Ὀρφέα τ' ἄνακτ' ἔχων
βάκχευε πολλῶν γραμμάτων τιμῶν κάπνους.
(2) ΧΟ. οὐκ ἔστιν ἵππων δεσπόσαι σ' ἄνευ μάχης.
ΗΡ. ἀλλ' οὐδ' ἀπειπεῖν τοὺς πόνους οἷόν τε μοι.
v. l. *τοῖς πόνοις.*
(3) καὶ κατθανών τ' ἂν ὤλετ', ἐκφυγών δ' ἔχει
τοσοῦτον ἄλγος, οὗ ποτ' οὐ λελήσεται.
(4) ἀλλὰ σοῦ τὸ μὴ φράσαι,
κακοῦ τοσούτου δώματος προκειμένου.
(5) καὶ δὴ προτείνω, Γοργόν' ὡς καρατόμῳ.
(6) τίς μοι φύλαξ ἦν, εἰ σὺ συμφορᾶς τύχοις;
(7) ἀλλ' ἐξ ἁπάντων βούλεται τιμὰς ἔχειν
κοινάς, δι' ἀριθμῶν δ' οὐδὲν αὔξεσθαι θέλει.
(8) θᾶσσον δὲ διεφοροῦντο σαρκὸς ἐνδυτὰ
ἢ σὺ ξυνάψαις βλέφαρα βασιλείοις κόραις.

III. Translate, with short notes explanatory of the sense, the grammar, or the argument:—

(1) ὁ παλαιός, ὃν οὗτος παρέβη, νόμος οὔτω κελεύει νομοθετεῖν, γράφεσθαι μέν, ἄν τίς τινα τῶν ὑπαρχόντων νόμων μὴ καλῶς ἔχειν ἡγῆται, παρεισφέρειν δ' αὐτὸν ἄλλον, ὃν ἂν τιθῇ λύων ἐκεῖνον, ὑμᾶς δ' ἀκούσαντας ἑλέσθαι τὸν κρείττω.

(2) ἀλλ' οὐχ οὗτος ἐχρήσατο τούτῳ τῷ μέτρῳ, ἀλλ' ἐάν τις ἀπαιτήσῃ χάριν ὑμᾶς, "ἄτιμος ἔστω" φησὶ "καὶ ἡ οὐσία δημοσία ἔστω." δύο τιμήματα ταῦτα. "εἶναι δὲ καὶ ἐνδείξεις καὶ ἀπαγωγάς· ἐὰν δ' ἁλῷ, ἔνοχος ἔστω τῷ νόμῳ ὃς κεῖται, ἐάν τις ὀφείλων ἄρχῃ τῷ δημοσίῳ." θάνατον λέγει· τοῦτο γάρ ἐστ' ἐπ' ἐκείνῳ τὸ ἐπιτίμιον. οὐκοῦν τρία τιμήματα ταῦτα.

(3) *φανήσεται γὰρ, οὐδὲ πολλοῦ δεῖ, τῆς γενησομένης ἄξιον αἰσχύνης.*

(4) *τίν' οὖν ῥᾳστώνην τοῖς πολλοῖς ὁ σός, ὦ Λεπτίνη, ποιεῖ νόμος, εἰ μιᾶς ἢ δυοῖν φυλαῖν ἕνα χορηγὸν καθίστησιν, ὃς ἀνθ' ἑνὸς ἄλλου τοῦθ' ἅπαξ ποιήσας ἀπηλλάξεται;*

(5) *ὡς τούτους οὖν ἀπάγειν λέγει. διαφέρει δὲ τί τοῦτο τοῦ ὡς αὐτὸν ἄγειν;*

(6) *φεύγειν, ἕως ἂν αἰδέσηταί τινα τῶν ἐν γένει τοῦ πεπονθότος.*

IV. Translate, with explanatory notes:—

(1) *ἀπορήσειε δ' ἄν τις τί ποτε καὶ βούλονται λέγειν αὐτοέκαστον, εἴπερ ἔν τε αὐτοανθρώπῳ καὶ ἐν ἀνθρώπῳ εἷς καὶ ὁ αὐτὸς λόγος ἐστὶν ὁ τοῦ ἀνθρώπου· ᾗ γὰρ ἄνθρωπος, οὐδὲν διοίσουσιν· εἰ δ' οὕτως, οὐδ' ᾗ ἀγαθόν.*

(2) *οὐκ ἀπαιτητέον δ' οὐδὲ τὴν αἰτίαν ἐν ἅπασιν ὁμοίως, ἀλλ' ἱκανὸν ἔν τισι τὸ ὅτι δειχθῆναι καλῶς, οἷον καὶ περὶ τὰς ἀρχάς· τὸ δ' ὅτι πρῶτον καὶ ἀρχή.*

(3) *εἰ δὴ ταῦτ' ἐστὶν ἀληθῆ, τί μᾶλλον ἡ ἀρετὴ τῆς κακίας ἔσται ἑκούσιον; ἀμφοῖν γὰρ ὁμοίως, τῷ ἀγαθῷ καὶ τῷ κακῷ, τὸ τέλος φύσει ἢ ὁπωσδήποτε φαίνεται καὶ κεῖται, τὰ δὲ λοιπὰ πρὸς τοῦτ' ἀναφέροντες πράττουσιν ὁπωσδήποτε.*

(4) *οὐκ ἐν τῇ δυνάμει δ' ἐστὶν ὁ ἀλαζὼν, ἀλλ' ἐν τῇ προαιρέσει.*

(5) *περὶ δὲ αἰδοῦς ὥς τινος ἀρετῆς οὐ προσήκει λέγειν· πάθει γὰρ μᾶλλον ἔοικεν ἢ ἕξει.*

History.

Two *questions should be attempted in this group.*

V. (1) What changes were brought about in Greece by the movement known as the Dorian migration?

(2) Sketch the changes in the constitution and powers of the Areopagus.

(3) Illustrate the connection between commercial and artistic activity in the Greek states.

(4) What do you know of the authorities for Greek History

from the end of the Persian Wars to the beginning of the Peloponnesian War?

(5) Summarize the administrative reforms advocated by Demosthenes and his party.

Literature.

Two *questions should be attempted in this group.*

VI. (1) πέρας τῆς Ὀδυσσείας τοῦτο ποιοῦνται [Ἀρισταρχὸς καὶ Ἀριστοφάνης].—*Scholiast ad Od.* XXIII. 296. What does this statement imply? What ground is there for regarding the remainder of the *Odyssey* as a later addition?

(2) Sketch the history of Elegiac poetry in Greece.

(3) Examine the moral charges brought against Demosthenes in reference to (1) the action of Apollodorus against Phormio; (2) the affair of Harpalus.

(4) What is Euripides' attitude towards the national religion?

(5) State and examine Aristotle's theory of the formation of habits.

(6) Give Aristotle's definition of pleasure. What is the place of pleasure in his scheme of life?

Thursday, 31*st March* 1898.—9 *to* 12 *o'clock.*

For Greek Prose:—

I do not know, that the colonies have, in any general way, or in any cool hour, gone much beyond the demand of immunity in relation to taxes. It is not fair to judge of the temper or dispositions of any men, or any set of men, when they are composed and at rest, from their conduct or their expressions in a state of disturbance and irritation. It is besides a very great mistake to imagine, that mankind follow up practically any speculative principle, either of government or of freedom, as

far as it will go in argument and logical illation. We Englishmen stop very short of the principles upon which we support any given part of our constitution; or even the whole of it together. I could easily, if I had not already tired you, give you very striking and convincing instances of it. This is nothing but what is natural and proper. All governments, indeed every human benefit and enjoyment, every virtue, and every prudent act, is founded on compromise and barter. We balance inconveniences; we give and take; we remit some rights that we may enjoy others; and we choose rather to be happy citizens, than subtle disputants. As we must give away some natural liberty to enjoy civil advantages, so we must sacrifice some civil liberties, for the advantages to be derived from the communion and fellowship of a great empire. But, in all fair dealings, the thing bought must bear some proportion to the purchase paid. None will barter away the immediate jewel of his soul.

BURKE.

LATIN.

THURSDAY, 31*st March* 1898.—2 *to* 5 *o'clock.*

Translate:—

1. Aebutio negotium datur; adest ad tabulam, licetur Aebutius; deterrentur emptores multi partim gratia Caesenniae, partim etiam pretio. fundus addicitur Aebutio; pecuniam argentario promittit Aebutius; quo testimonio nunc vir optimus utitur sibi emptum esse: quasi vero aut nos ei negemus addictum, aut tum quisquam fuerit, qui dubitaret, quin emeretur Caesenniae, cum id plerique scirent, omnes fere audissent, qui non audisset, is coniectura assequi posset, cum pecunia Caesenniae ex illa hereditate deberetur, eam porro in praediis collocari maxime expediret, essent autem praedia, quae mulieri maxime con-

venirent, ea venirent, liceretur is, quem Caesenniae dare operam nemo miraretur, sibi emere nemo posset suspicari. hac emptione facta pecunia solvitur a Caesennia; cuius rei putat iste rationem reddi non posse, quod ipse tabulas averterit; se autem habere argentarii tabulas, in quibus sibi expensa pecunia lata sit acceptaque relata; quasi aliter id fieri oportuerit. cum omnia ita facta essent, quemadmodum nos defendimus, Caesennia fundum possedit locavitque: neque ita multo post A. Caecinae nupsit. ut in pauca conferam, testamento facto mulier moritur; facit heredem ex deunce et semuncia Caecinam, ex duabus sextulis M. Fulcinium, libertum superioris viri; Aebutio sextulam aspergit. hanc sextulam illa mercedem isti esse voluit assiduitatis et molestiae, si quam ceperat; iste autem hac sextula se ansam retinere omnium controversiarum putat.

2. Curia, praetexto quae nunc nitet alta senatu,
pellitos habuit rustica corda patres.
bucina cogebat priscos ad verba Quirites:
centum illi in prato saepe senatus erat.
nec sinuosa cavo pendebant vela theatro,
pulpita sollemnes non oluere crocos.
nulli cura fuit externos quaerere divos,
cum tremeret patrio pendula turba sacro,
annua at accenso celebrare Parilia faeno,
qualia nunc curto lustra novantur equo.
Vesta coronatis pauper gaudebat asellis,
ducebant macrae vilia sacra boves.
parva saginati lustrabant compita porci,
pastor et ad calamos exta litabat ovis.
verbera pellitus saetosa movebat arator,
unde licens Fabius sacra Lupercus habet.
nec rudis infestis miles radiabat in armis:
miscebant usta proelia nuda sude.
prima galeritus posuit praetoria Lycmon,

magnaque pars Tatio rerum erat inter oves.
hinc Titiens Ramnesque viri Luceresque coloni,
quattuor hinc albos Romulus egit equos.
quippe suburbanae parva nimis urbe Bovillae
et qui nunc nulli maxima turba Gabi,
et stetit Alba potens, albae suis omine nata,
hac ubi Fidenas longa erat isse via.

3. Multa et divus Augustus digna memoria fecit dixitque, ex quibus adpareat iram illi non imperasse. Timagenes historiarum scriptor quaedam in ipsum, quaedam in uxorem eius et totam domum dixerat nec perdiderat dicta. magis enim circumfertur et in ore hominum est temeraria urbanitas. saepe illum Caesar monuit, moderatius lingua uteretur: perseveranti domo sua interdixit. postea Timagenes in contubernio Pollionis Asinii consenuit ac tota civitate direptus est. nullum illi limen praeclusa Caesaris domus abstulit. historias postea quas scripserat recitavit et combussit et libros acta Caesaris Augusti continentes in ignem posuit. inimicitias gessit cum Caesare: nemo amicitiam eius extimuit, nemo quasi fulguritum refugit. fuit qui praeberet tam alte cadenti sinum. tulit hoc, ut dixi, Caesar patienter, ne eo quidem motus, quod laudibus suis rebusque gestis manus attulerat. Numquam cum hospite inimici sui questus est. hoc dumtaxat Pollioni Asinio dixit: *θηριοτροφεῖς*. paranti deinde excusationem obstitit et "fruere" inquit, "mi Pollio, fruere" et cum Pollio diceret "si iubes, Caesar, statim illi domo mea interdicam." "hoc me," inquit, "putas facturum, cum ego vos in gratiam reduxerim?" fuerat enim aliquando Timageni Pollio iratus nec ullam aliam habuerat causam desinendi quam quod Caesar coeperat.

4. "Dicam" ait "ac penitus causas labemque docebo"
Mopsus, et astra tuens: "non si mortalia membra
sortitusque breves et parvi tempora fati
perpetimur, socius superi quondam ignis Olympi,

fas ideo miscere neces ferroque morantes
exigere hinc animas redituraque semina caelo.
quippe nec in ventos nec in ultima solvimur ossa:
ira manet duratque dolor. cum deinde tremendi
ad solium venere Jovis questuque nefandam
edocuere necem, patet ollis ianua leti
atque iterum remeare licet: comes una sororum
additur et pariter terras atque aequora lustrant.
quisque suos sontes inimicaque pectora poenis
implicat et varia meritos formidine pulsat.
at quibus invito maduerunt sanguine dextrae,
si fors saeva tulit miseros, si proxima culpae,
hos variis mens ipsa modis agit et sua carpunt
facta viros resides: et iam nihil amplius ausi
in lacrimas humilesque metus aegramque fatiscunt
segnitiem: quos ecce vides. sed nostra requiret
cura viam, memori iam pridem cognita vati.
est procul ad Stygiae devexa silentia noctis
Cimmerium domus et superis incognita tellus,
caeruleo tenebrosa situ, quo flammea numquam
sol iuga sidereos nec mittit Juppiter annos.
stant tacitae frondes immotaque silva comanti
horret Averna iugo: specus umbrarumque meatus
subter et Oceani praeceps fragor arvaque nigro
vasta metu et subitae post longa silentia voces.

COMPARATIVE PHILOLOGY.—(Optional Subject.)

Friday, 1*st April* 1898.—2 *to* 5 *o'clock.*

Answer questions 11 *and* 12, *and any six of the others.*

1. What are the characteristic features of Indo-Germanic, as compared with Semitic, speech?

2. Discuss the probable original nature of case-suffixes generally.

3. What do you understand by stem-gradation? Give examples.

4. What relics of original Aorist forms do you find in Latin?

5. Discuss the Greek tense-forms with κ.

6. Show how original *gh* and *dh* are represented in Greek and Latin.

7. What changes do the original unaspirated guttural (velar and palatal) sounds undergo in the different languages? Give examples.

8. What original Ablative suffixes can you trace in Greek and Latin?

9. Show what changes the original diphthongs undergo in Latin.

10. Discuss the formation of the Latin Passive voice.

11. Analyse, and explain briefly the formation of, fifteen of the following words, giving cognates where you can:—ἐννέα, ἔπεφνε, χείσομαι, χαμάζε, λύθητι, ἴᾶσι, χαρίεσσα, εἰδυῖα, ὅσσα, ἔσκε (he was), εἰδείην, λέγειν, Πυλοιγενής; dēm, vidissem, regere, fierī, coquo, erām, ferendus.

12. Give cognates and, if possible, the etymology of fifteen of the following words:—πείθω, λείπει, μείζω, ἠώς, ὅλος, ὀρθός, ἔννεπε, ἕπου, ὦμος, οἴομαι; sero, femina, emo, īdūs, sēcius, fors, vēnum (dare), juvencus, nīdus, rādix.

ANCIENT PHILOSOPHY.—(Optional Subject.)

Earlier Period.

Friday, 1*st April* 1898.—9 *to* 12 *o'clock.*

1. To what extent is it true to say that the Pre-Socratic philosophers "busied themselves exclusively with speculations about the world around them"?

2. Explain the conceptions of τὸ μὴ ὄν held by (*a*) Parmenides, (*b*) Plato.

3. Give a short account of the theories of Empedocles, indicating his relation to his predecessors.

4. What contributions to Logic were made by the Sophists and Socrates?

5. Discuss whether the *Theaetetus* can be regarded as having a positive result.

6. Translate:—

(*a*) τὰ δὲ ἄστρα γίνεσθαι κύκλον πυρός, ἀποκριθέντα τοῦ κατὰ τὸν κόσμον πυρός, περιληφθέντα δ' ὑπὸ ἀέρος. ἐκπνοὰς δ' ὑπάρξαι πόρους τινὰς αὐλώδεις, καθ' οὓς φαίνεται τὰ ἄστρα.

(*b*) Ἡρακλείτῳ ἐπετίμα εἰπόντι ὅτι δὶς τῷ αὐτῷ ποταμῷ οὐκ ἔστιν ἐμβῆναι· αὐτὸς γὰρ ᾤετο οὐδ' ἅπαξ.

(*c*) εἰ γὰρ ἀεὶ, φησίν, ἠρεμεῖ πᾶν ἢ κινεῖται, ὅταν ᾖ κατὰ τὸ ἴσον, ἔστι δ' ἀεὶ τὸ φερόμενον ἐν τῷ νῦν κατὰ τὸ ἴσον, ἀκίνητον τὴν φερομένην εἶναι οἰστόν. τοῦτο δ' ἐστὶ ψεῦδος· οὐ γὰρ σύγκειται ὁ χρόνος ἐκ τῶν νῦν ἀδιαιρέτων, ὥσπερ οὐδ' ἄλλο μέγεθος οὐδέν.

(*d*) καὶ περὶ δικαίου καὶ ἀδίκου καὶ ἀγαθοῦ καὶ κακοῦ καὶ πάντων τῶν εἰδῶν πέρι ὁ αὐτὸς λόγος, αὐτὸ μὲν ἓν ἕκαστον εἶναι, τῇ δὲ τῶν πράξεων καὶ σωμάτων καὶ ἀλλήλων κοινωνίᾳ πανταχοῦ φανταζόμενα πολλὰ φαίνεσθαι ἕκαστον.

(*e*) ἆθρει δὴ περισκοπῶν, μή τις τῶν ἀμυήτων ἐπακούῃ. εἰσὶ δὲ οὗτοι οἳ οὐδὲν ἄλλο οἰόμενοι εἶναι ἢ οὗ ἂν δύνωνται ἁπρὶξ τοῖν χεροῖν λαβέσθαι, πράξεις δὲ καὶ γενέσεις καὶ πᾶν τὸ ἀόρατον οὐκ ἀποδεχόμενοι ὡς ἐν οὐσίας μέρει.

(*f*) ἀλλοδοξίαν τινὰ οὖσαν ψευδῆ φαμὲν εἶναι δόξαν, ὅταν τίς τι τῶν ὄντων ἄλλο αὖ τῶν ὄντων, ἀνταλλαξάμενος τῇ διανοίᾳ φῇ εἶναι. οὕτω γὰρ ὂν μὲν ἀεὶ δοξάζει, ἕτερον δὲ ἀνθ' ἑτέρου, καὶ ἁμαρτάνων οὐ ἐσκόπει δικαίως ἂν καλοῖτο ψευδῆ δοξάζων.

Later Period.

Friday, 1*st April* 1898.—9 *to* 12 *o'clock.*

1. Discuss the view that the Greeks "confounded ethics with politics."

2. How is the fourfold division of reality in the *Philebus* related to the theory of ideas of Plato's earlier period?

3. In what points does Aristotle's analysis of syllogism differ from that of modern formal logic?

4. What are the meanings attached by Plato and Aristotle to the word διαλεκτική?

5. Explain Aristotle's theory of Activity and Passivity. How does he apply it (in his treatise *de anima*) to elucidate the nature of perception and thought?

6. Translate and explain :—

(*a*) Σ. τὸ λευκὸν ἐν τοῖς πρῶτον, εἰ βούλει, θεασώμεθα γένος. Π. πάνυ μὲν οὖν. Σ. πῶς οὖν ἂν λευκοῦ καὶ τίς καθαρότης ἡμῖν εἴη; πότερα τὸ μέγιστόν τε καὶ πλεῖστον ἢ τὸ ἀκρατέστατον, ἐν ᾧ χρώματος μηδεμία μοῖρα ἄλλη μηδενὸς ἐνείη;

(*b*) ἐπαχθῆναι μὴ ἔχοντας αἴσθησιν ἀδύνατον· τῶν γὰρ καθ' ἕκαστον ἡ αἴσθησις . . . οὐδὲ δι' αἰσθήσεως ἔστιν ἐπίστασθαι. εἰ γὰρ καὶ ἔστιν ἡ αἴσθησις τοῦ τοιοῦδε καὶ μὴ τοῦδέ τινος, ἀλλ' αἰσθάνεσθαί γε ἀναγκαῖον τόδε τι καὶ ποῦ καὶ νῦν. τὸ δὲ καθόλου καὶ ἐπὶ πᾶσιν ἀδύνατον αἰσθάνεσθαι· οὐ γὰρ τόδε οὐδὲ νῦν.

(*c*) ἐπίστασθαι δὲ οἰόμεθ' ἕκαστον ἁπλῶς . . . ὅταν τὴν τ' αἰτίαν οἰώμεθα γινώσκειν δι' ἣν τὸ πρᾶγμά ἐστιν, ὅτι ἐκείνου αἰτία ἐστί, καὶ μὴ ἐνδέχεσθαι τοῦτ' ἄλλως ἔχειν.

(*d*) οὔτε δὴ ἐνυπάρχουσιν ἀφωρισμέναι αἱ ἕξεις οὔτ' ἀπ' ἄλλων ἕξεων γίνονται γνωστικωτέρων, ἀλλ' ἀπὸ αἰσθήσεως, οἷον ἐν μάχῃ τροπῆς γενομένης ἑνὸς στάντος ἕτερος ἕστη, εἶθ' ἕτερος, ἕως ἐπὶ ἀρχὴν ἦλθεν· ἡ δὲ ψυχὴ ὑπάρχει τοιαύτη οὖσα οἷα δύνασθαι πάσχειν τοῦτο.

(*e*) εὐλαβητέον δ' ὅπως μὴ λανθάνῃ πότερον εἷς ὁ λόγος αὐτῆς ἐστί, καθάπερ ζῴου, ἢ καθ' ἑκάστην ἕτερος, οἷον ἵππου, κύνος, ἀνθρώπου, θεοῦ, τὸ δὲ ζῷον τὸ καθόλου ἤτοι οὐθέν ἔστιν ἢ ὕστερον· ὁμοίως δὲ κἂν εἴ τι κοινὸν ἄλλο κατηγορεῖτο.

(*f*) ἔχει δ' ἀπορίαν· εἰ γὰρ τὸ τῇ ὄψει αἰσθάνεσθαι ἐστιν ὁρᾶν, ὁρᾶται δὲ χρῶμα ἢ τὸ ἔχον, εἰ ὄψεταί τις τὸ ὁρῶν, καὶ χρῶμα ἕξει τὸ ὁρῶν πρῶτον.

(*g*) τὸ δ' αὐτό ἐστιν ἡ κατ' ἐνέργειαν ἐπιστήμη τῷ πράγματι· ἡ δὲ κατὰ δύναμιν χρόνῳ προτέρα ἐν τῷ ἑνί, ὅλως δὲ οὐ χρόνῳ. ἀλλ' οὐχ ὁτὲ μὲν νοεῖ ὁτὲ δ' οὐ νοεῖ. χωρισθεὶς δ' ἐστὶ μόνον τοῦθ' ὅπερ ἐστί, καὶ τοῦτο μόνον ἀθάνατον καὶ ἀίδιον.

(B)—MENTAL PHILOSOPHY.

LOGIC AND METAPHYSICS.

FIRST PAPER.

MONDAY, 28*th March* 1898.—9 *to* 12 *o'clock.*

1. What is the significance attributed in recent Logic to Kant's distinction between Analytic and Synthetic Judgments? Examine the view that logical thought is concerned with the former only.

2. "The negative judgment belongs entirely to the sphere of subjective thought."

"In systematic knowledge every affirmation denies and every negative affirms."

Discuss the nature of negation and its relation to reality.

3. State what you consider to be the essential characteristics of Inference. How far are these present in Immediate Inference, in the Syllogism, and in Mill's Inductive Methods?

4. "Truths of Reason," and "Truths of Fact." Explain this

distinction, and trace its influence in the history of British philosophy.

5. Describe Bacon's doctrine of Causation, and compare with that of modern writers on Induction.

SECOND PAPER.

MONDAY, 28*th March* 1898.—2 *to* 5 *o'clock.*

1. "Feeling, as such is matter of *being* rather than of direct knowledge; and all that we know about it, we know from its antecedents or consequents in presentation."

Explain and discuss.

2. Sketch briefly the history of the question as to *primary* and *secondary qualities*, and examine the validity or true ground of the distinction.

3. Discuss the different theories as to the origin and evolution of purposive action.

4. "Attention is an unanalysable element in any psychical event." "Attention is nothing but the transformation which a sensation undergoes when it predominates by its vivacity."

Investigate these opposite views of Attention, and indicate the significance of the opposition for psychological theory.

5. Explain and critically consider the relation of Thought to Perception in Kant's theory.

THIRD PAPER.

TUESDAY, 29*th March* 1898.—9 *to* 12 *o'clock.*

1. What light is thrown by the *Theaetetus* (*a*) upon the genesis (*b*) upon the meaning and scope of Plato's Ideal Theory.

2. Distinguish precisely the functions in knowledge attributed by Aristotle to the νοῦς ποιητικὸς and νοῦς παθητικὸς respectively. Indicate the historical affinities of his doctrine.

3. "An idea, in so far as it is an idea, involves affirmation or negation." "An idea, since it is a mode of thought, is not an image of anything." Consider the significance of *idea*, *image*, *volition*, in Spinoza, and compare with the theories of Locke and Leibnitz respectively.

4. Hegel describes three forms in which the relation of thought to reality is conceived; characterise these, and show how each is transcended in his Dialectic method.

5. Indicate with some care the relation of Lotze to Herbart and to Hegel, respectively.

MORAL PHILOSOPHY.

FIRST PAPER.

TUESDAY, 29*th March* 1898.—2 *to* 5 *o'clock.*

1. "Free-will" merely says that of alternatives that really *tempt* the will, more than one is really possible."—(JAMES). Consider more recent phases of the Free-will controversy, in reference especially to the theory of *Possibility.*

2. Discuss, with historical references, the relation of Will to Desire, and of the Good to the Bad Will.

3. State and examine Sidgwick's account of the relation between Justice and Benevolence. Consider its significance for ethical theory.

4. "In its ultimate form, altruism will be the achievement of gratification, through sympathy with those gratifications of others which are mainly produced by their activities of all kinds, successfully carried on."—SPENCER.

Estimate the value of Spencer's view, as to the place of sympathy in moral development.

5. In what sense has the self a history, according to Green, and in what sense none? Explain and criticise his view of the

relation of individual character (*a*) to particular actions, (*b*) to the universal self-consciousness.

SECOND PAPER.

WEDNESDAY, 30*th March* 1898.—9 *to* 12 *o'clock.*

1. Consider the ethical aspect of Plato's Ideal Theory, and give an account of Aristotle's criticism of the use of the theory in ethics.

2. Explain Aristotle's theory of Pleasure, and point out any modern approximations to his view. What is the significance of his objections to the doctrine that Pleasure is a kind of Movement?

3. Interpret Spinoza's view of Activity and Passivity, and of Virtue and Vice as depending on these.

4. Kant has been criticised as putting forward (*a*) an *over-formal*, (*b*) an *anti-social*, moral standard. Discuss the validity of these objections to his ethical theory.

5. Explain and discuss the Hegelian conception of *Contract*, in relation to the *Idea of Right.*

THIRD PAPER.

WEDNESDAY, 30*th March* 1898.—2 *to* 5 *o'clock.*

An Essay upon the following subject:—

The application of biological principles to the explanation of ethical phenomena.

SPECIAL EXAMINATION IN GREEK

for Candidates for Honours in Mental Philosophy who have not taken Greek for Ordinary Degree of M.A., page 805.

(C)—MATHEMATICS AND NATURAL PHILOSOPHY.

PURE MATHEMATICS.

FIRST PAPER.

MONDAY, 28*th March* 1898.—9 A.M. *to* 12 NOON.

1. Shew that, when the Briggian logarithm of $a+r$ $(0<r<1)$ is deduced by the method of proportionate parts from the logarithms of a and $a+1$, the error is less than $\frac{1}{20a^2}$.

Hence shew that a table of the logarithms to seven places of decimals of all integers of five figures is sufficient to give accurately to seven places the logarithm of any number.

2. Find the equation to a straight line in space of three dimensions, the co-ordinates of any two points on it being given.

An ellipsoid and a sphere have a common centre O, and OPQ is any radius vector meeting the two surfaces in P and Q. Find the equation to the locus of the middle point of PQ. Determine the degree of the surface, and find its vertices.

3. Find the equation in tangential (line) co-ordinates of a curve of the second degree, showing that it is also of the second class.

Find the equation to the system of conics touching the four lines $x=0$, $y=0$, $2x+y=1$, $x+3y=1$; and find the locus of its centre.

4. Find the equation of the tangent cone from a given point to a quadric.

A sphere rests on a horizontal plane in the presence of a point of light lower than the highest point of the sphere. Shew that the shadow is a hyperbola, and find the foci.

5. Shew that $x^4-2px^2y^2+qy^4$, p and q being real, has always two real quadratic factors, and resolve it into linear factors.

Resolve $x^{2n}+qy^{2n}-2px^ny^n$ into linear factors and into real quadratic factors.

6. Find the volume of the closed part of the surface

$$x^3-ax^2=(x-2a)(y^2+z^2).$$

Shew the form of the surface by drawing various sections parallel to $z=0$.

7. Give Lagrange's theorem for the expansion of $\phi(z)$ in ascending powers of y where $z=x+yf(z)$.

Find the expansion of z in terms of y, when $z=1+yz^9$, and shew that the series is convergent if $y<(\frac{8}{9})^9$.

8. Shew how to find the double points of the curve given by

$$x=f(\theta),\ y=\phi(\theta).$$

Find the double points of the curve

$$x=a(1-m\cos\theta),\ y=a(\theta+m\sin\theta),$$

when $1<m<2$.

9. Shew that if $u+iv$ is a real function of $x+iy$ (x and y being rectangular coordinates), the curves $u=$const., $v=$const. cut orthogonally. Shew also that in the limit when α vanishes the curves $u=o$, $u=\alpha$, $v=o$, $v=\alpha$ cut out an infinitesimal square.

10. Find the equation of a sphere passing through four given points.

Find the equation to a sphere passing through four consecutive points of the curve $x=a\cos\theta$, $y=a\sin\theta$, $z=a\theta$; and shew that its radius is $2a$.

11. Obtain a formula of reduction for $\int dx(a+bx^2)^{-n}$, when n is integral. Evaluate $\int dx(a+bx^2)^{-2}$.

Find the area of the surface of an ellipsoid of revolution.

12. Reduce the equations

$$x\frac{d^2y}{dx^2}+2\frac{dy}{dx}+xy=0$$

$$x^4\frac{d^2y}{dx^2}+2x^3\frac{dy}{dx}+y=0$$

to the form $$\frac{d^2y}{dx^2}+f(x)y=0,$$

the first by change of the dependent variable; the second by change of the independent variable; and solve the equations.

13. The plane $z=0$ being supposed horizontal, find the equations of contour lines and of stream lines on the surface $f(x, y, z)=0$.

Find them in integral form for the ellipsoid

$$\frac{x^2}{a^2}+\frac{y^2}{b^2}+\frac{z^2}{c^2}=1.$$

14. Prove that, if $\phi(x)$ satisfy certain restrictions, then

$$\underset{n=\infty}{L}\int_0^h dz\phi(z)\sin nz/z=\tfrac{1}{2}\phi(+0).$$

Expand $\cos ax$ in a Fourier-cosine-series, for the interval $0\gtrless x\gtrless\pi$; and deduce the expression for $\sin\theta$ in the form of an infinite continued product.

SECOND PAPER.

MONDAY, 28*th March* 1898.—2 *to* 5 P.M.

1. Give a rigorous proof that $\underset{x=\infty}{L}(1+1/x)^x$ is finite and determinate.

Shew that, if $x>2$, then $(1+1/x)^x$ lies between $e(1-1/2x)$ and $e(1-1/2x+11/24x^2)$.

Evaluate $\underset{x=\infty}{L}\{(1+1/x)^x-e\}/\{(1+1/2x)^{2x}-e\}$.

2. Find an equation for the axes (regarded as unlimited lines) of the conic $ax^2+2hxy+by^2+2gx+2fy+c=0$.

The centre of a rectangular hyperbola is at the origin, and it touches the straight line $x+y=1$; find the locus of its vertices.

3. State the conditions for maxima or minima values of functions of a single variable; and discriminate between turning values of various orders.

A circular-cylindrical box with a flat lid is just large enough to contain two equal spheres of given radius; discuss the maxima and minima values of its volume.

4. Trace the curve $x^4+xy^3+y^3-xy^2=0$; and find the area of its loop.

5. Discuss geometrically and analytically the rectification and quadrature of the cycloid.

A is the vertex of a cycloid which rolls on a straight line. Determine the radius of curvature of the roulette generated by A, in terms of the arc measured from A to the instantaneous centre of rotation.

6. Shew that $\int dx\, \phi(x, y)$, where $\phi(x, y)$ is a rational function of x and y, and $y^2=ax^2+2bx+c$, can be rationalised in an infinity of different ways by means of a quadratic rational transformation.

Shew that $\int dx\{x+\sqrt{(x^4-1)}\}/\{x-\sqrt{(x^4-1)}\}$ can be evaluated by means of elementary transcendents; and indicate, without numerical details, the general form of the result.

7. Establish sufficient conditions for the admissibility of finding the differential coefficient of a definite integral with respect to any parameter by merely differentiating the integrand. Is this permissible with the integral $\int_0^\infty dx\, \sin yx/x$?

Evaluate (i) $\int_0^\infty dx\cos rx/(k^2+x^2)$; and (ii) $\int_0^{\frac{\pi}{2}} dx\, x/\tan x$.

8. Find the necessary and sufficient condition that the two systems $f_1(D)x+g_1(D)y=T_1$, $f_2(D)x+g_2(D)y=T_2$, and $F_1(D)x+G_1(D)y=U_1$, $F_2(D)x+G_2(D)y=U_2$ be equivalent, where $f_1(D)$, etc., are integral functions with constant coefficients of $D=d/dt$, and T_1, etc., are functions of t.

Solve the equation

$$xy(x^2-y^2)\left(\frac{dy}{dx}\right)^2+(x^4-x^2y^2-y^4)\frac{dy}{dx}-xy(x^2+y^2)=0.$$

9. Shew how to find the locus of the points of inflexion on the integral curves of the differential equation $\psi(x, y, p)=0$. What important inference can be drawn regarding the p-discriminant locus of a differential equation of the first order?

Discuss by approximation the nature at any point on the x-axis of the integral curves of $4x^2p^2-4xyp+y^2-4x^3=0$. Verify your conclusions by integrating the equation.

10. Give Jacobi's theory of the integration of the homogeneous linear partial differential equation of the first order, say, $P\delta u/\delta x+Q\delta u/\delta y+R\delta u/\delta z=0$.

Find an integral of $xyp+x^2q+yz=0$, subject to the condition $p=2x^4$ when $y=0$. Is the determination of the integral complete?

11. State Cauchy's theorem regarding the existence of a solution of a partial differential equation having one dependent variable.

Shew that the solution of the equation $\delta z/\delta x=\delta^2 z/\delta y^2$, subject to the condition $z=\phi(y)$ when $x=0$, is given within a certain region by $z=\phi(0)+\Sigma_r\{\phi^{(2r)}(0)x^r+{}_rC_1\phi^{(2r-1)}(0)x^{r-1}y+{}_rC_2\phi^{(2r-2)}(0)x^{r-2}y^2+\ldots+\phi^r(0)y^r\}/r!$. Work out the solution (in finite terms) when the determining condition is $z=y^{2n}$ for $x=0$.

12. Find the equations to the locus of the centres of a system of parallel plane sections of an ellipsoid: and shew that, if a diameter is a generator of a cone of the n^{th} degree, the corresponding diametral plane envelops a cone of the n^{th} class.

Given that the extremities of a chord of an ellipsoid are (x_1, y_1, z_1) (x_2, y_2, z_2), find the condition that it be an axis of some plane section through it: and deduce the existence of the complex to which all "axes" of the ellipsoid belong. Interpret the equation to this complex.

13. Define the principal radii of curvature and the principal sections at any point of a surface; and deduce formulae for determining them.

Shew that the equation to the polar developable of the curve $\Sigma x^2=\rho^2$, $\Sigma x^2/a^2=1$ is

$(X+Y+Z)^3=27XYZ$, where $X\equiv a^2(b^2-c^2)^2(\rho^2-a^2)x^2$, etc.

14. Two fixed circles in the plane P touch internally at O. A movable plane Q perpendicular to P passes through O and meets the two circles in R and S; and a circle is described in the plane Q on RS as diameter. Find the equation to the surface generated by this circle; and calculate its volume.

THIRD PAPER.

TUESDAY, 29*th March* 1898.—9 A.M. *to* 12 NOON.

Write short dissertations on not more than two of the following subjects:—

1. The representation of the circular functions by means of infinite continued products.

2. The Hessian and its rôle in the theory of the homogeneous quadric.

3. The properties of a function which is inverse to a periodic function; in particular, the manner in which $\log x$ varies when the affixe of x describes a circle about the origin in Argand's diagram.

4. The conditions under which (1) the integral, (2) the differential coefficient of an infinite series may be obtained by integrating or differentiating the series term by term.

5. The foci of a conic section.

6. Differential equations of the form $Pdx+Qdy+Rdz$, and their analytical and geometrical uses.

NATURAL PHILOSOPHY.

FIRST PAPER.

TUESDAY, *29th March* 1898.—2 *to* 5 P.M.

1. Show that a system of forces acting on a rigid body is reducible to a single resultant force and a resultant couple. Prove that when the axis of the couple is parallel to the line of action of the force, the couple is a minimum.

Forces of values 1, 2, 3, act along successive edges, not in one plane, of a rectangular parallelepiped, the lengths of the edges being 3, 2, 1, respectively. Find the position of the central axes, and the value of the minimum couple.

2. Prove that every body has three principal axes of inertia about which the moments of inertia have maximum, minimum, and minimax values.

Find the principal moments of inertia of a hemispherical bowl about a point in the inner rim, the internal radius being $1/n$th of the external radius.

3. A car is travelling at the rate of 6 miles an hour on a line 20 yards distant from a man, who starts to overtake the car at the instant it is nearest to him. With what speed, and in what direction, must he run on a straight line course so as to overtake the car with least fatigue, the fatigue being proportional to the square of the speed, to the distance travelled over, and to the time taken.

4. Form the equations of motion of an excentrically loaded disc rolling on a horizontal plane, the plane of the disc being vertical. What are the greatest and smallest values of the

vertical pressure between the sphere and plane? Under what condition will simple rolling cease?

5. Obtain the equation of conduction of heat along a long thin bar from which heat is being lost by radiation and convection. Find the solution applicable to the case in which one end is subject to a periodic variation of temperature.

6. Find the equations of the equipotential surfaces due to two given centres of force of equal intensity but opposite sign, the law of force being that of the inverse square of the distance.

Deduce the properties of the field of force due to a spherical magnet uniformly magnetised in a given direction.

7. Show that the instantaneous motion of a rigid body is given by six data, and find an expression for the kinetic energy in terms of such six data.

8. A particle P is projected from a point A at distance c from a centre of force, to which the acceleration is μr^{-5}, perpendicularly to the radius vector with speed $\mu^{\frac{1}{2}}c^{-2}$.

Discuss the motion; and find another point from which a particle might be projected at an acute angle to the radius vector so as ultimately to pass through A in the same direction and with the same speed as P.

9. A curve is described freely under action of a force perpendicular to a fixed straight line and proportional to the distance from it. Show that the curve is a curve of sines or a common catenary, distinguishing the cases.

A common catenary is described freely under action of a force such that the force and the ordinate make equal angles with the tangent on opposite sides of it. Show that the force is inversely proportional to the cube of the ordinate.

10. A square slab of wood standing with one side on a horizontal plane is cut along a diagonal, and the upper part is on the point of slipping. Find the relation subsisting between

the co-efficients of friction between wood and wood and between wood and plane, and determine the various forces.

11. Find the centre of mass of (1) a hemispherical shell, (2) a solid hemisphere, (3) an octant of an ellipsoid contained by the three principal planes.

12. Find the equations of motion of a rigid body in two dimensions.

A rod falls from standing in a vertical position on a smooth plane. Find the angular velocity with which it strikes the plane, and compare it with the angular velocity when the plane is perfectly rough.

SECOND PAPER.

WEDNESDAY, 30*th March* 1898.—9 A.M. *to* 12 NOON.

1. Find the attraction of (1) a uniform spherical shell at any point inside or out, (2) the attraction of a uniform limited rod at any point.

2. Find the potential at any point due to (1) a thin shell bounded by two concentric similar and similarly situated ellipsoids, (2) a solid homogeneous ellipsoid.

3. Explain the principle of virtual work.

$ABCD$ is a framework of four equal rods hinged together. It is hung from A and kept in the form of a rhombus by a horizontal strut PQ without weight between AB and AD. Find the stress in the strut and at the joints B and C.

4. Find the instantaneous centre of motion of a body of which one point moves along a given curve and one curve passes through a given point.

An isosceles triangle rests in a plane perpendicular to a vertical wall with one of the equal sides on the wall and the base resting on a horizontal bar parallel to the wall. Discuss the possible equilibrium and its stability for motion in the plane of the triangle.

5. Two prisms of equal angle, and of refractive indices differing slightly, are placed together so as to form a plane slab. Find the deviation of a ray falling normally on the slab.

6. A vertical cylinder contains a column of air one foot high at atmospheric pressure. A piston closing the cylinder and weighing one pound per square inch is allowed to descend. Find the height of the column (1) when the piston comes sensibly to rest, (2) when the temperature of the column has reached that of the atmosphere.

7. A conical envelope of uniform flexibility but inextensible material, apex downwards, is full of water. At what point is it most likely to burst, and along what line?

8. For gravitational attraction find the relation between the surface integral of normal force over any closed surface and the enclosed matter. And deduce an expression for the density of the matter in terms of the potential.

9. Find the equation of heat conduction in an isotropic body.

In the case of a steady flow find two solutions symmetrical about a point, and apply to the flow of heat through a spherical shell whose internal and external surfaces are at given temperatures.

10. Find the period of a conical pendulum, and the period of a small variation. Determine the conditions under which the bob will when slightly disturbed describe a path closed in one revolution.

11. A piece of heavy uniform string lies entirely on a horizontal circular cylinder, perpendicular to its axis, the lower end at the level of the axis. If the string is on the point of slipping find the position of the higher end.

12. Find equations for the stresses in, and the form of, a beam to which any forces are applied in one plane.

A uniform rod is fixed upright in the ground and a mass great in comparison with the rod is hung from the end. Find the form of the rod approximately.

THIRD PAPER.

WEDNESDAY, 30*th March* 1898.—2 *to* 5 P.M.

1. Distinguish the various forms of central orbits when the force is attractive and inversely as the cube of the distance.

2. Define a pure strain, and show that in general the successive application of two pure strains leaves three directions unchanged.

3. Show that, if a number of forces acting on a rigid system be, in any way, reduced to two, the volume of the tetrahedron of which these are opposite edges is constant.

4. Point out how the thermal conductivity of terrestrial surface strata may be calculated from periodic readings of thermometers whose bulbs are buried at different depths.

5. Trace the consequences, as regards the effect of pressure on the maximum density point, of Canton's result that water is less compressible in summer than in winter.

6. Find the brachistochrone (generally tortuous) when the speed of a particle is proportional to its distance from a given straight line.

7. Define the "circulation" round any closed line of particles in a mass of perfect fluid. Show that it depends entirely upon the existence of vortex-motion, and that it preserves its amount unchanged.

8. Gravitating matter is distributed over a spherical surface, with density inversely as the cube of the distance from a point. Find the potentials at points inside and outside the sphere.

9. A plate, bounded by concentric circles, is wholly immersed in water. Find, for any depth of immersion, the greatest inclination to the vertical consistent with the centre of pressure's being *on* the surface.

10. Show how to find a series of curves in a vertical plane, such that particles sliding down them simultaneously may continue in one vertical. Work out the special case when one of them is a straight line, and all the particles start from rest.

11. A quantity of heat is suddenly communicated to a point in an infinite solid at 0° C. Find the temperature distribution at any future time.

12. If the temperature of a cooling sphere be expressed by

$$v = A\epsilon^{-\kappa p^2 t} f(r),$$

find the form of f, and show how the admissible values of p depend upon the radius of the sphere.

(D)—ENGLISH (Language, Literature, and British History).

ENGLISH.

FIRST PAPER.

Friday, 25*th March* 1898.—9 *to* 12 *o'clock.*

(N.B.—*Not more than* NINE *questions to be attempted.*)

1. Relate Aristotle's views as to the scope and function of Tragedy to his conception of Poetry as Imitation.

2. Contrast and relate the views of Aristotle, Dante, and Wordsworth on Poetic Diction.

3. Compare Quintilian's treatment of Figures with that of Professor Bain.

4. Trace and value the influence of Longinus on Literary Criticism.

5. Explain De Quincey's application of the term, Rhetoric. Illustrate by reference to his appreciation of Burke.

6. Discuss, on the lines followed by Professor Masson, Milton's place and power as a metrist.

7. Trace the influence of the Heroic Couplet, by its use and the reaction from it, upon English verse.

8. Sketch the history of Literary Criticism in the present century. Note the more influential writers and their methods.

9. Trace the development of English Prose from Malory to Addison.

10. Write a study of "The Lyric in the Drama" through the Elizabethan and Jacobean periods.

11. Follow the rise and fall of the "humours" comedy.

12. In a history of Prose Style how would you deal with Bunyan? Note similar instances in other periods.

13. Write a study of Ben Jonson as a literary critic.

SECOND PAPER.

FRIDAY, 25*th March* 1898.—2 *to* 5 *o'clock.*

Write an Essay on *one* of the following subjects:—

1. The Decadence of the Drama as Literature.

2. The "correctness" of the Augustan Age.

3. "The poet writes under one restriction only, the necessity of giving immediate pleasure to a human being."—WORDSWORTH.

THIRD PAPER.

SATURDAY, 26*th March* 1898.—9 *to* 12 *o'clock.*

(N.B.—*Not more than* NINE *questions to be attempted.*)

1. Write a study of the attitude of the Augustan poets to Nature. Illustrate specially from Pope.

2. With what variations of meaning did the Eighteenth Century employ the term, Imagination? Show the influence of the various theories on Poetry.

3. Show clearly the influence of Thomson upon English

Poetry. In how far was his attitude a return to earlier modes?

4. Trace the relations of Wordsworth to his predecessors of the Eighteenth Century, especially as regards the representation of Nature.

5. Give some account of the Revival of Romance in the Eighteenth Century.

6. Discuss the place and power of Addison in the development of English Prose Style and of the Essay. What are the chief devices of his harmony?

7. Sketch the history of the Novel from Richardson to Scott.

8. What results in literary handling and form are due to the Recovery of the Ballad?

9. Give some account of the more famous collections of letters in your prescribed period, with notes upon their writers.

10. Note the place and importance in literary history of the following: Horace Walpole, W. L. Bowles, William Collins, Charles Churchill, Michael Bruce, Thomas Warton.

11. Consider the influence of the reputed Ossian poems upon English literature.

12. How far is the style of Sterne original? Note its influence on later writers.

13. Write notes as to subject, treatment, and style, on the following: *The Fleece*, *The Beggar's Opera*, *The Fable of the Bees*, *The Man of Feeling*, *Cato*, *The Minstrel*, *The Splendid Shilling*.

14. Contrast Goldsmith as an Essayist with Addison.

FOURTH PAPER.

SATURDAY, *26th March* 1898.—2 *to* 5 *o'clock*.

(N.B.—*Not more than* NINE *questions to be attempted.*)

1. Explain Pope's theory of "the ruling passion." Illustrate

his use of it from the Satires and Epistles, and discuss the limitations it lays upon his work.

2. Byron says of Pope, "He is himself a literature." What is lacking in Pope, according to your idea of literature, that gainsays this praise?

3. Consider Swift's power of irony, and exemplify it from the Digressions in *A Tale of a Tub.*

4. What are the characteristics of Thomson's Blank Verse? Instance mainly from *Winter.*

5. Write a criticism of *The Castle of Indolence* as a Spenserian poem.

6. What general canons of criticism can you discover from Johnson's method in the *Lives of the Poets*?

7. What was Gray's work in the development of English Poetical Style?

8. What does Scots Poetry owe to Allan Ramsay?

9. Trace the indebtedness of Burns to Fergusson in respect of themes and forms.

10. Discuss the influence of Burns and Cowper upon Poetry in the extension of its range.

11. Write a study of Cowper as a nature poet.

12. How far is Crabbe of the School of Pope?

13. What are the notes of Burke's style? Illustrate from the *Thoughts on the Present Discontents.*

FIFTH PAPER.

MONDAY, 28*th March* 1898.—9 *to* 12 *o'clock.*

1. (*a*) Translate, with annotations upon any peculiarity of language:—

Ða se wisa spræc
sunu Healfdenes (swiȝedon ealle):
'Þæt la mæȝ secȝan, se þe soð ond riht

fremeð on folce, feor eal ȝemon
eald eðelweard, þæt ðes eorl wære
ȝeboren betera! Blæd is aræred
ȝeond widweȝas, wine min Beowulf,
ðin ofer þeoda ȝehwylce: eal þu hit ȝeþyldum healdest,
mæȝen mid modes snyttrum. Ic þe sceal mine ȝelæstan
freode, swa wit furðum spræcon: ðu scealt to frofre weorþan
eal lanȝtwidiȝ leodum þinum,
hæleðum to helpe. Ne wearð Heremod swa
eaforum Ecȝwelan, Ar-Scyldinȝum:
ne ȝeweox he him to willan, ac to wælfealle
and to deaðcwalum Deniȝa leodum;
breat bolȝenmod beodȝeneatas,
eaxlȝesteallan, oþ þæt he ana hwearf,
mære þeoden mondreamum from:
ðeah þe hine mihtiȝ ȝod mæȝenes wynnum,
eafeþum stepte, ofer ealle men
forð ȝefremede. Hwæþere him on ferhþe ȝreow
breosthord blodreow: nallas beaȝas ȝeaf
Denum æfter dome; dreamleas ȝebad,
þæt he þæs ȝewinnes weorc þrowade,
leodbealo lonȝsum. Đu þe lær be þon,
ȝumcyste onȝit! ic þis ȝid be þe
awræc wintrum frod. Wundor is to secȝanne,
hu mihtiȝ ȝod manna cynne
þurh sidne sefan snyttru bryttað,
eard ond eorlscipe: he ah ealra ȝeweald!
Hwilum he on lufan læteð hworfan
monnes modȝeþonc mæran cynnes,
seleð him on eþle eorþan wynne,
to healdanne hleoburh wera,
ȝedeð him swa ȝewealdene worolde dælas,
side rice, þæt he his selfa ne mæȝ

for his unsnyttrum ende ȝeþencean:
wunaþ he on wiste, no hine wiht dweleþ
adl ne yldo ne him inwitsorh
on sefan sweorceþ, ne ȝesacu ohwær
ecȝhete eoweþ, ac him eal worold
wendeþ on willan.'

(*b*) Discuss the various theories as to the origin and growth of the *Beowulf*.

2. Translate, annotating the language:—

Her Eadȝar wæs, Enȝla waldend,
corðre mycclum to kinȝe ȝehalȝod
on þære ealdan byriȝ Acemannesceastre;
eac hie eȝbuend oþre worde,
beornas Baðan nemnaþ. Þær wæs blis mycel
on þam eadȝan dæȝe eallum ȝeworden,
þone niða bearn nemnaþ *and* ceȝeaþ
Pentecostenes dæȝ. Þær wæs preosta heap,
mycel muneca þreat mine ȝefræȝe
ȝleawra ȝeȝaderod. *And* þa aȝanȝen wæs
tynhund wintra ȝeteled rimes
fram ȝebyrdtide bremes cinȝes,
leohta hyrdes, butan ðær to lafe þa ȝet
wæs winterȝeteles, þæs ȝewritu secȝaþ,
seofan *and* XX: swa neah wæs siȝora frean
þusend aurnen, ða þa þis ȝelamp.
And him Eadmundes eafora hæfde
niȝen *and* XX niþweorca heard
wintra on worlde, ða þis ȝeworden wæs,
on*d* þa on ðam þrittiȝeþan wæs þeoden ȝehalȝod.

3. Translate:—

On þam ylcan timan com eac sum bisceop fram Romebyriȝ, Birinus ȝehaten, to Westseaxena kyninȝe, Cyneȝyls ȝehaten, se wæs ða ȝit hæðen and eall Westsexena land. Birinus witodlice

ȝewende fram Rome be ðæs papan ræde þe ða on Rome wæs, and behet þæt he wolde ȝodes willan ȝefremman, and bodian þam hæþenum þæs Hælendes naman and þone soðan ȝeleafan on fyrlenum landum. Þa becom he to Westseaxan, þe wæs ða ȝyt hæþen, and ȝebiȝde þone cyninȝ Kyneȝyls to ȝode, and ealle his leode to ȝeleafan mid him. Hit ȝelamp þa swa þæt se ȝeleaffulla Oswold, Norðhymbra cyninȝ, wæs cumen to Cyneȝylse, and hine to fulluhte nam, fæȝen his ȝecyrrednysse. Þa ȝeafon þa cyneȝas, Cyneȝyls and Oswold, þam halȝan Birine him to bisceopstole þa burh Dorcanceaster, and he þærbinnan wunode ȝodes lof arærende and ȝerihtlæcende þæt folc mid lare to ȝeleafan to lanȝum fyrste, oð þæt he ȝesæliȝ siþode to Criste; and his lic wearþ bebyrȝed on ðære ylcan byriȝ, oð þæt Hædde bisceop eft his ban ferode to Wintanceastre, and mid wurðmynte ȝeloȝode binnan Ealdan-mynstre, þær man hine wurðað ȝyt.

4. Translate, with notes as to dialect:—

Summe iuglurs beoð þet ne kunnen seruen of non oðer gleo, buten makien cheres, & wrenchen mis hore muð, & schulen mid hore eien. Of þis mestere serueð þeo uniselie ontfule iðe deofles kurt, to bringen o leihtre hore ontfule louerd. Uor ȝif ei seið wel oðer deð wel, nonesweis ne muwen heo loken þiderward mid riht eie of gode heorte: auh winckeð oðere half, & biholdeð o luft & asquint: & ȝif þer is out to eadwiten, oðer [loken] lodlich, þiderward heo schuleð mid eiðer eien; & hwon heo iherеð þet god, heo sleateð adun boa two hore earen: auh þet lust aȝean þet vuel is euer wid open. Þeonne heo wrencheð hore muð mis, hwon heo turneð god to vuel: & ȝif hit is sumdel vuel þuruh more lastunge heo wrencheð hit to wurse. Þeos beoð hore owune prophetes forcwiddares. Þeos bodieð biuron hwu þe ateliche deouel schal ȝet agesten ham mid his grimme grennunge, & hu heo schulen ham sulf grennen & niuelen, & makien sur semblaunt uor þe muchele angoise, iðe pine of helle. Auh for-þui heo beoð þe lesse te menen, þet heo biuorenhond leorneð hore meister to makien grimme chere.

5. Give some account of the *Ormulum* and the *Brut.*

6. What influences, classical and contemporary, do you trace in *The House of Fame*?

Or,

Indicate the passages in *The House of Fame* which seem to you to reveal more clearly Chaucer's powers and the characteristics of his genius.

7. (*a*) Translate, with notes as to obsolete words and forms :—

'For some tyme I serued · Symme atte stile,
And was his prentis ypli3te · his profit to wayte.
First I lerned to lye · a leef other tweyne,
Wikkedlich to weye · was my furst lessoun.
To Wy and to Wynchestre · I went to þe faire,
With many manere marchandise · as my Maistre me hi3te ;
Ne had þe grace of gyle · ygo amonge my ware,
It had be vnsolde þis seuene 3ere · so me god helpe !
Thanne drowe I me amonges draperes · my donet to lerne,
To drawe þe lyser alonge · þe lenger it semed ;
Amonge þe riche rayes · I rendred a lessoun,
To broche hem with a pak-nedle · and plaited hem togyderes
And put hem in a presse · and pynned hem therinne,
Tyl ten 3erdes or twelue · hadde tolled out threttene.
My wyf was a webbe · and wollen cloth made ;
She spak to spynnesteres · to spynnen it oute.
Ac the pounde that she payed by · poised a quarteroun more,
Than myne owne auncere · who-so wey3ed treuthe.
I bou3te hir barly-malte · she brewe it to selle,
Peny-ale and podyng-ale · she poured togideres
For laborers and for low folke ; · that lay by hym-selue.
The best ale lay in my boure · or in my bedchambre,
And who-so bummed ther-of · bou3te it ther-after,
A galoun for a grote · god wote, no lesse ;
And 3it it cam in cupmel · this crafte my wyf vsed.

Rose þe regratere · was hir riȝte name;
She hath holden hokkerye · al hire lyf-tyme.
Ac I swere now, so the ik · þat synne wil I lete,
And neuere wikkedliche weye · ne wikke chaffare vse,
But wenden to Walsyngham · and my wyf als,
And bidde þe rode of Bromeholme · brynge me oute of dette.

(*b*) Write an appreciation of the description of the Seven Deadly Sins in Passus V.

8. Write a study of the language of *The Kingis Quair* in relation to other dialects.

Or,

Discuss the authorship of *The Kingis Quair.*

9. Translate, with annotations as to language and verse forms:—

Sum latit lattoun, but lay, lepis in laud lyte,
Sum penis furth a pan boddum to prent fals plakkis;
Sum goukis quhill the glas pyg grow full of gold ȝit,
Throw cury of the quentassens, thocht clay mugis crakis;
Sum warnour for this warldis wrak wendis by his wyt;
Sum trachour crynis the cunȝe, and kepis corn stakis;
Sum prig penny, sum pyk thank wyth privy promyt;
Sum garris wyth a ged staf to jag throw blak jakkis.
Quhat fynȝeit fayr, quhat flattry, and quhat fals talis!
Quhat misery is now in land!
How mony crakyt cunnand!
For nowthir aiths, nor band,
Nor selis avalis.

SIXTH PAPER.

MONDAY, 28*th March* 1898.—2 *to* 5 *o'clock.*

1. Translate:—

Mæȝ ic be me sylfum soðgied wrecan,
siþas secgan, hu ic geswincdagum

earfoðhwile oft þrowade,
bitre breostceare ȝebiden hæbbe,
ȝecunnad in ceole cearselda fela,
atol yþa ȝewealc, þær mec oft biȝeat
nearo nihtwaco æt nacan stefnan,
þonne he be clifum cnossade. Calde ȝeþrungen
wæron mine fet, forste ȝebunden
caldum clommum; þær þa ceare seofedun
hat ymb heortan; hunȝor innan slat
merewerȝes mod. Þæt se mon ne wat,
þe him on foldan fæȝrost limpeð,
hu ic earmceariȝ iscealdne sæ
winter wunade wræccan lastum,
wynnum biloren, winemæȝum bidroren,
bihongen hrimȝicelum: hæȝl scurum fleaȝ.

2. Translate:—

Forþon is min hyȝe ȝeomor,
ða ic me ful ȝemæcne monnan funde,
heardsæliȝne, hyȝeȝeomorne,
mod miþendne, morþor hycȝendne,
bliþe ȝebæro. Ful oft wit beotedan,
þæt unc ne ȝedælde nemne deað ana
owiht elles: eft is þæt onhworfen,
is nu swa hit no wære
freondscipe uncer! Sceal ic feor ȝe neah
mines fela leofan fæhðu dreoȝan!
Heht mec mon wunian on wuda bearwe
under actreo in þam eorðscræfe:
eald is þes eorðsele, eal ic eom oflongad;
sindon dena dimme, duna uphea,
bitre burȝtunas, brerum beweaxne,
wic wynna leas.

3. Translate:—

Fela wundra we ge·hierdon on folclicre spræce be þæm halgan Eadmunde, þe we her nyllaþ on ge·write settan, ac hie wat ge·hwa. On þissum halgan is sweotol, and on swelcum oþrum, þæt God ælmihtig mæg þone mann a·ræran eft on domes dæge onsundne of eorþan, se þe hielt Eadmund halne his lichaman oþ þone miclan dæg, þeah þe he on moldan come. Wierþe wære seo stow for þæm weorþfullan halgan þæt hie man weorþode and wel ge·logode mid clænum Godes þeowum to Cristes þeowdome; for þæm þe se halga is mærra þonne menn mægen a·smean. Nis Angel-cynn be·dæled Dryhtnes halgena, þonne on Engla-lande licgaþ swelce halgan swelce þes halga cyning, and Cuþberht se eadiga and sancte Æþelþryþ on Elig, and eac hiere sweostor, onsund on lichaman, ge·leafan to trymmunge. Sind eac fela oþre on Angel-cynne halgan, þe fela wundra wyrcaþ, swa swa hit wide is cuþ, þæm Ælmihtigan to lofe, þe hie on ge·liefdon. Crist ge·sweotolaþ mannum þurh his mære halgan þæt he is ælmihtig God þe wyrcþ swelc wundru, þeah þe þa earman Iudeiscan hine eallunga wiþ·socen, for þæm þe hie sind a·wiergde, swa swa hie wyscton him selfum. Ne beoþ nan wundru ge·worht æt hiera byrgennum, for þæm þe hie ne ge·liefaþ on þone lifiendan Crist; ac Crist ge·sweotolaþ mannum hwær se goda ge·leafa is, þonne he swelc wundru wyrcþ þurh his halgan wide geond þas eorþan, þæs him sie wuldor and lof a mid his heofonlicum Fæder and þæm Halgan Gaste, a butan ende.

4. Identify the dialects of the following and give your reasons:—

(*a*) Cyning sceal mid ceape cwene gebicgan,
bunum *and* beagum: bu sceolon ærest
geofum god wesan. Ƿuð sceal in eorle,
wiġ geweaxan, *and* wif geþeon
leof mid hyre leodum, leohtmod wesan,
rune healdan, rumheort beon

mearum *and* maþmum, meodorædenne
for ȝesiðmæȝen symle æȝhwær
eodor æþelinȝ*a* ærest ȝeȝretan,
forman fulle to frean hond
ricene ȝeræcan, *and* him ræd witan
boldaȝendum bæm ætsomme.

(*b*) Crist wæs on rodi
hweþræ þer fusæ
fearran cwomu
æþþilae til anum
ic þæt al bi*heald*
sare ic wæs mid sorȝ*um* ȝi*d*rœ*fid*.

(*c*) Upon the wawis weltering to and fro,
So infortunate was us that fremyt day,
That maugre, playnly, quhethir we wold or no,
With strong hand, as by forse, schortly to say,
Off inymyis takin and led away
We weren all, and broght in thaire contree;
Fortune it schupe non othir wayis to be.

(*d*) Vor wanne snou liþ þicke and wide,
And alle wiȝtes habbeþ soreȝe,
Þu singest from eve fort amoreȝe.
Ach ich alle blisse mid me bringe;
Ech wiȝt is glad for mine þinge,
And blisseþ hit wanne ich cume,
And hiateþ aȝen mine kume.

5. Consider the influence on Middle Scots of Latin and of French.

Or,

Give some account of the MS. collections of Old English verse.

Or,

What were the chief dialects of English previous to the Norman Conquest? Distinguish their characteristics.

6. What are the chief points of variation in Middle English Syntax from that of Old English? Discuss the French influence thereon.

Or,

Discuss the structure and forms of the chief Old English anomalous verbs.

7. What are the chief points of difference between the Old English Book-hand *before* and *after* the introduction of the Caroline minuscule?

ENGLISH—BRITISH HISTORY.

TUESDAY, 29*th March* 1898.—9 *to* 12 *o'clock.*

N.B.—*Not more than* NINE *questions to be attempted. They should be taken from different parts of the paper.*

1. What arguments can you adduce for and against the view that all traces of the Roman occupation were swept away and the Romanised Britons exterminated by the Anglo-Saxons?

2. Illustrate the political and literary importance of the Church in Anglo-Saxon times.

3. How far is it correct to say that there was no marked divergence between England and Scotland till the War of Independence, and that the separation then effected was to a great extent a schism of the English people?

4. Describe the part taken by England in the different Crusades. Mention any economic and social effects resulting from them.

5. What were the causes of the discontents in the reign of Henry III, what remedies were tried, and with what success?

6. Give a summary of the legislation of Edward I, and illustrate from it the political ideal at which he aimed.

7. What abuses prevailed in the Church in the latter half of

the fourteenth century? Illustrate by reference to the legislation and literature of the time.

8. What is your opinion of the aims and measures of Richard II? Is Shakespeare's portrait of him true historically?

9. Give illustrations of the influence exerted by Margaret of Anjou *or* by Warwick the King-maker.

10. Describe the Revival of Learning in England, and point out its true relation to the Reformation of the Church.

11. Give illustrations of the influence of France on the history and institutions of Scotland between 1450 and 1550.

12. What events led up to the Plantation of Ulster? Explain that scheme, and show how it affected the subsequent history of Ireland.

13. By what steps did Cromwell attain to supreme power, and how did he try to regularise his position?

14. Describe the successive stages by which the Cabinet system came into existence.

15. Show how the command of the sea was a decisive factor in the wars between Britain and France in the period 1756-1783, *or* in the period 1793-1815.

16. What claim have the Liberal Ministries between 1832 and 1841 to be considered as Reforming Administrations? Account for their gradual loss of popularity.

State and Church: 1384-1563.

Tuesday, 29*th March* 1898.—2 *to* 5 P.M.

(*No.* 1 *and any* four *of the others to be answered.*)

1. Explain the historical bearings of *three* of:—

(*a*) "Pilgrymes and palmers plighted hem togidere
To seke seynt James and seyntes in Rome."

. . . . . .

"Persones and parisch prestes pleyned hem to the bischop,
That here parisshes were pore sith the pestilence tyme,
To have a lycence and a leve at London to dwelle."

. . . . . .

"Theigh ye be found in the fraternity of alle the foure ordres,
And have indulgences double-folde, but if dowel yow help,
I sette yowre patentes and yowre pardounz at one pese hule."

(*b*) "A statute was mad ageyn Lollardis, that where evyr thei were founde preching her evel doctrine, thei schuld be take and presentid to the bischop."—1401.

"The Speker answered that swech summes myte not be rered so ofte in the puple but if the Cherch should be put fro her temporaltes."—1403.

(*c*) "Il Cardinale era in tanta autorità che la volontà del Re senza l'approvatione di Eboracense fusse di niuno momento."—"Prestò gli orecchi il Re a questo consiglio . . . perchè era innamorato d'una donzella della Reina."

(*d*) "Francia stipendariis in pace quoque, si pax ista est, oppleta atque obsessa."—"Sed, quod pejus est, arctabant incolas sibi de carnibus et aliis a circumvicinis villatis, suis propriis sumptibus, providere."—"In regno Angliæ nullus bona alterius capit sine voluntate proprietarii eorundem."

2. Indicate shortly the nature of Wycliffe's doctrines, religious and political.

3. "With Oldcastle's execution Lollardy became extinct." Criticise and refute.

4. Sketch the relations of State and Church during the Lancastrian period.

5. Trace the career of John Hus, and show his connection with Wycliffe.

6. State the nature of the English constitution as defined in Fortescue's "*de laudibus*" and "Governance."

7. What, in brief, is specially noteworthy in the career of Dean Colet, or of Erasmus, or of Sir Thomas More?

8. "The Church of England was founded in 1563." Explain, criticise, and confute.

(E)—MODERN LANGUAGES AND LITERATURE.

FRENCH.

FIRST PAPER.

MONDAY, 28*th March* 1898.—9 A.M. *to* 12 NOON.

I. Translate into French:—

(*a*) His intellect was by no means contemptible. He was not without a certain quickness of apprehension and vivacity of expression, which passed current among his admirers for wit and wisdom. Even the experienced St. Aldegonde was deceived in his character, and described him after an hour and a half's interview as a prince overflowing with bounty, intelligence, and sincerity. That such men as St. Aldegonde and the Prince of Orange should be at fault in their judgment, is evidence not so much of their want of discernment as of the difference between the general reputation of the Duke at that period and that which has eventually been established for him in history. No more ignoble yet more dangerous creature had yet been loosed upon the devoted soil of the Netherlands. Not one of the personages who had hitherto figured in the long drama of the revolt had enacted so sorry a part. Ambitious but trivial, enterprising but cowardly, an intriguer and a dupe, without religious or political principles, save that he was willing to

accept any creed or any system which might advance his own schemes, he was the most unfit protector for a people, who, whether wrong or right, were at least in earnest, and who were accustomed to regard truth as one of the virtues. MOTLEY.

(*b*) I know many have been taught to think that moderation, in a case like this, is a sort of treason; and that all arguments for it are sufficiently answered by railing at rebels and rebellion, and by charging all the present or future miseries we may suffer on the resistance of our brethren. But I would wish them, in this grave matter, and if peace is not wholly removed from their hearts, to consider seriously, first, that to criminate and recriminate never yet was the road to reconciliation, in any difference amongst men. In the next place, it would be right to reflect, that the American English (whom they may abuse, if they think it honourable to revile the absent) can, as things now stand, neither be provoked at our railing, nor bettered by our instruction. All communication is cut off between us; but this we know with certainty, that though we cannot reclaim them, we may reform ourselves. If measures of peace are necessary, they must begin somewhere; and a conciliatory temper must precede and prepare every plan of reconciliation. Nor do I conceive that we suffer anything in thus regulating our own minds. We are not disarmed by being disencumbered of our passions. BURKE.

(*c*) Persons of noble birth are less envied in their rising, for it seemeth but right done to their birth; besides, there seemeth not much added to their fortune; and envy is as the sunbeams, that beat hotter upon a bank or steep-rising ground than upon a flat. And for the same reason, those that are advanced by degrees are less envied than those that are advanced suddenly.

Those that have joined with their honour great travels, cares, or perils are less subject to envy, for men think that they earn their honours hardly, and pity them sometimes; and pity ever

healeth envy, wherefore you shall observe that the more deep and sober sort of politic persons, in their greatness, are ever bemoaning themselves what a life they lead, not that they feel it so, but only to abate the edge of envy. But this is to be understood of business that is laid upon men, and not such as they call unto themselves; for nothing increaseth envy more than an unnecessary and ambitious engrossing of business, and nothing doth extinguish envy more than for a great person to preserve all other inferior officers in their full rights and pre-eminences of their places; for by that means there be so many screens between him and envy. BACON.

II. Answer the following (Candidates may write in French or English, but additional marks will be given for good French style):—

(*a*) Appreciate the genius of Molière with reference to the canons and limitations of Comedy. Illustrate your statements by quotations from or reference to *Le Misanthrope*.

(*b*) Give an estimate of the work of Châteaubriand.

(*c*) In what sense can it be asserted that La Bruyere was a precursor of the 18th century literature?

SECOND PAPER.

TUESDAY, 29*th March* 1898.—2 *to* 5 P.M.

Translate into English, paying careful attention to style:—

(*a*) Il est l'appui de l'ordre; il est bon catholique,
Il signe hardiment: prospérité publique.
La trahison s'habille en général français;
L'archevêque ébloui bénit le dieu Succès;
C'était crime jeudi, mais c'est haut fait dimanche.
Du pourpoint probité l'on retourne la manche.
Tout est dit. La vertu tombe dans l'arriéré.
L'honneur est un vieux fou dans sa cave muré.

O grand penseur de bronze, en nos dures cervelles
Faisons entrer un peu ces morales nouvelles.
Lorsque sur le Grand'Combe ou sur le blanc de zinc,
On a revendu vingt ce qu'on a payé cinq.
Sache qu'un guet-apens par où nous triomphâmes
Est juste, honnête et bon ; tout au rebours des femmes,
Sache qu'en vieillissant le crime devient beau.
Il plane cygne après s'être envolé corbeau.
Oui, tout cadavre utile exhale une odeur d'ambre.
Que vient-on nous parler d'un crime de décembre
Quand nous sommes en juin ! l'herbe a poussé dessus.
Toute la question, la voici ; fils, tissus,
Cotons et sucres bruts prospèrent ; le temps passe.
Le parjure difforme et la trahison basse
En avançant en âge ont la propriété
De perdre leur bassesse et leur difformité ;
Et l'assassinat louche et tout souillé de fange
Change son front de spectre en un visage d'ange.

VICTOR HUGO.

(*b*) La société va sans but, sans jour, sans droit,
Et l'envers de l'habit est devenu l'endroit.
L'immondice au sommet de l'état se déploie.
Les chiffonniers, la nuit, courbés, flairant leur proie,
Allongent leurs crochets du côté du sénat.
Voyez-moi ce coquin, normand, corse, auvergnat ;
C'était fait pour vieillir bélître et mourir cuistre ;
C'est premier président, c'est préfet, c'est ministre.
Ce truand catholique au temps jadis vivait
Maigre, chez Flicoteaux plutôt que chez Chevet ;
Il conseille l'état pour vingt-cinq mille livres
Par an. Ce petit homme, étant teneur de livres
Dans la blonde Marseille, au pays du mistral,
Fit des faux. Le voici procureur-général.

Celui-là, qui courait la foire avec un singe,
Est député ; cet autre, ayant fort peu de linge,
Sur la pointe du pied entrait dans les logis
Où bâillait quelque armoire aux tiroirs élargis,
Et du bourgeois absent empruntait la tunique ;
Nul mortel n'a jamais, de façon plus cynique,
Assouvi le désir des chemises d'autrui ;
Il était grinche hier, il est juge aujourd'hui.
Ceux-ci, quand il leur plaît, chapelains de la clique,
Au saint-père accroupi font pondre une encyclique.

VICTOR HUGO.

(*c*) L'aysance donc et l'indigence despendent de l'opinion d'un chascun ; et non plus la richesse que la gloire, que la santé, n'ont qu'autant de beauté, et de plaisir, que leur en preste celuy qui les possede. Chascun est bien ou mal, selon qu'il s'en treuve : non de qui on le croid, mais qui le croid de soy, est content ; et en cela seul la creance se donne essence et verité. La fortune ne nous faict ny bien ny mal ; elle nous en offre seulement la matiere et la semence ; laquelle nostre ame, plus puissante qu'elle, tourne et applique comme il luy plaist ; seule cause et maistresse de sa condition heureuse ou malheureuse. Les accessions externes prennent saveur et couleur de l'interne constitution : comme les accoustrements eschauffent, non de leur chaleur, mais de la nostre, laquelle ils sont propres à couver et nourir ; qui en abrieroit un corps froid, il en tireroit mesme service pour la froideur : ainsi se conserve la neige et la glace. Certes tout en la maniere qu'à un faineant l'estude sert de torment ; à un yvrongne, l'abstinence du vin ; la frugalité est supplice aux luxurieux ; et l'exercice, gehenne à un homme delicat et oysif : ainsi est il du reste. Les choses ne sont pas si douloureuses ny difficiles d'elles mesmes ; mais nostre faiblesse et lascheté les faict telles. Pour iuger des choses grandes et haultes, il fault une ame de mesme ; aultrement nous leur

attribuons le vice qui est le nostre; un aviron droict semble courbe en l'eau; il n'importe pas seulement qu'on veoye la chose, mais comment on la veoid.

MONTAIGNE.

(*d*) Je hais à mort de sentir le flatteur; qui faict que je me jecte naturellement à un parler sec, rond et crud, qui tire, à qui ne me cognoist d'ailleurs, un peu vers le dédaigneux. J'honore le plus ceulx que j'honore le moins; et, où mon ame marche d'une grande alaigresse, j'oublie les pas de la contenance; et m'offre maigrement et fièrement à ceulx à qui je suis, et me présente moins à qui je me suis le plus donné; il me semble qu'ils le doibvent lire en mon cœur, et que l'expression de mes paroles faict tort à ma conception. A bienveigner, à prendre congé, à remercier, à saluer, à présenter mon service, et tels compliments verbeux des lois cerimonieuses de nostre civilité, je ne cognois personne si sottement sterile de langage que moy: et n'ay jamais esté employé à faire des lettres de faveur et recommandation, que celuy pour qui c'estoit n'aye trouvees seches et lasches. J'escris mes lettres toujours en poste, et si précipiteusement, que, quoyque je peigne insupportablement mal, j'aime mieulx escrire de ma main que d'y en employer une aultre: car je n'en treuve point qui me puisse suyvre, et ne les transcris jamais. J'ay accoustumé les grands qui me cognoissent à y supporter des litures et des trasseures, et un papier sans plieure et sans marge. Celles qui me coustent le plus sont celles qui valent le moins: depuis que je les traisne, c'est signe que je n'y suis pas. Je commence volontiers sans project; le premier traict produict le second. Les lettres de ce temps sont plus en bordures et prefaces, qu'en matiere. Comme j'aime mieulx composer deux lettres que d'en clore et plier une, et résigne toujours scete commission à quelque aultre; de mesme, quand la matiere est achevee, je donnerois volontiers à quelqu'un la charge d'y adjouster ces longues harangues, offres et prieres que nous logeons sur la fin,

et desire que quelque nouvel usage nous en descharge, comme aussi de les inscrire d'une legende de qualitez et tiltres.

MONTAIGNE.

(*e*) Si l'on voit les paysages de M. Michelet, c'est qu'on les sent, et qu'il les sent. Il les sentait lorsqu'il a décrit sa colline nantaise étendue entre les eaux grises de la Vendée et les eaux jaunes de la Bretagne, antique jardin abandonné, plein de grandes charmilles, et de cerisiers rouges, où les pluies sans écoulement nourrissent une verdure exubérante, encombrée de plantes domestiques et sauvages, fouillis de hautes herbes, luxe de végétation négligée, "efflorescence molle et débordante, sous un ciel humide, tiède et doux." Il les sentait quand il peignait ces marais d'Amérique, larges bras de mer abandonnés dans la retraite des eaux, où le peuple des cèdres enfonce ses pieds dans la vase qui fermente, et sous ces flèches entre-croisées étend un crépuscule sinistre. Mais la vraie patrie de cette imagination ardente est le pays du soleil, la région brûlée du globe, la dévorante nature des tropiques ; sa violence, sa concentration fiévreuse en imite l'énergie insensée et les furieux excès. Méry l'a peinte aussi, mais sa riche imagination et son enthousiasme n'égalent point l'ivresse maladive et nerveuse, les accès de poésie convulsive, les phrases vibrantes, les petits mots dardés en traits de feu, le pétillement d'éclairs qui éclatent ici : l'artiste parle de ces insectes, acharnés chasseurs, insatiables gloutons, excités, piqués par la chaleur, par l'excitation d'un monde d'épices et de substances âcres, qui pullulent dans les forêts vierges "où tout vous parle de vie, où fermente éternellement le bouillonnant creuset de la nature." H. TAINE.

(*f*) Ici et là, leurs vivantes ténèbres s'épaississent d'une triple voûte, et par des arbres géants, et par des enlacements de lianes, et par des herbes de trente pieds à larges et superbes feuilles. Par places, ces herbes plongent dans le vieux limon primitif, tandis qu'à cent pieds plus haut, par-dessus la grande nuit, des

fleurs altières et puissantes se mirent dans le brûlant soleil aux clairières, aux étroits passages où pénètrent ses rayons ; c'est une scintillation, un bourdonnement éternel, des scarabées, papillons, oiseaux-mouches et colibris, pierreries animées et mobiles, qui s'agitent sans repos. La nuit, scène plus étonnante ! commence l'illumination féerique des mouches luisantes, qui, par milliards de millions, font des arabesques fantasques, des fantaisies effrayantes de lumière, des grimoires de feu. Avec toute cette splendeur, aux parties basses clapote un peuple obscur, un monde sale de caïmans, de serpents d'eau. Aux troncs des arbres énormes, les fantastiques orchidées, filles aimées de la fièvre, enfants de l'air corrompu, bizarres papillons végétaux, se suspendent et semblent voler. Dans ces meurtrières solitudes, elles se délectent et se baignent dans les miasmes putrides, boivent la mort qui fait leur vie, et traduisent par le caprice de leurs couleurs inouïes, l'ivresse de la nature.

MICHELET.

THIRD PAPER.

WEDNESDAY, 30*th March* 1898.—9 A.M. *to* 12 NOON.

Translate into modern French *and* into English the following passages from *La Chanson de Roland* :—

(*a*) Charles li reis revint de pasmeisons :
Par mains lo tienent quatre de ses barons.
Guardet a terre, veit gesir son nevot :
Cors at gaillart, perdude at sa color,
Torblez ses uelz, molt li sont tenebros.
Charles lo plaint par feit e par amor :
"Amis Rodlanz, Dieus metet t'aneme en flors,
En paredis, entre les glorios !
Com en Espaigne venis a mal seignor !
Ja mais n'iert jorz de tei n'aie dolor.

Com dechedrat ma force e ma baldor!
Nen avrai ja qui sostiegnet m'onor.
Soz ciel ne cuit aveir ami un sol:
Se j'ai parenz, n'en i at nul si prot."
Trait ses crignels pleines ses mains ansdous.
Cent milie Franc en ont si grant dolor
Nen i at cel qui durement ne plort.
"Amis Rodlanz, jo m'en irai en France.
Com jo serai a Lodom en ma chambre,
De plusors regnes vendront li ome estrange,
Demanderont ou est li cons chataignes:
Jo lor dirai qu'il est morz en Espaigne.
A grant dolor tendrai puis mon reialme:
Ja mais n'iort jorz que ne plor ne nem plaigne."
(*b*) Li emperedre est repaidriez d'Espaigne,
E vient ad Ais, al meillor siet de France;
Monte el palais, est venuz en la chambre.
Es li venude Alde, une bele dame;
Ço dist al rei: "Oust Rodlanz li chataignes,
Qui me jurat come sa per a prendre?"
Charles en at e dolor e pesance,
Ploret des uelz, tiret sa barbe blanche:
"Suer, chiere amie, d'ome mort me demandes.
Jo t'en donrai molt esforciét eschange;
Ç'ost Lodewis, meillor ne sai en France:
Il est mes filz de ma moillier la gente,
E si tendrat mes marches e mon regne."
Alde respont: "Cist moz mei est estranges!
Ne placet Dieu ne ses sainz ne ses angeles
Après Rodlant que jo vive remaigne!"
Pert la color, chiet as piez Charlemagne;
Sempres est morte: Dieus ait mercit de l'aneme!
Franceis baron en plorent, si la plaignent.

Alde la bele est a sa fin alede.
Cuidet li reis qu'ele se seit pasmede:
Pitiet en at, sin ploret l'emperedre.
Prent la as mains, si l'en at relevede:
Sour les espadles at la teste clinede.
Quant Charles veit que morte l'at trovede.
Quatre contesses sempres i at mandedes:
Ad un mostier de nonains est portede;
La nuit la guaitent entresque a l'ajornede.
Lonc un alter belement l'enterrerent:
Molt grant onor i at li reis donede.

Philological Questions.

I. Write short notes on the following points:—

(*a*) "Après la ruine de l'établissement romain officiel une part considérable du lexique latin sombra." What is meant by this, and what were the compensations for these losses?

(*b*) "Le latin populaire contenait déjà un certain nombre de mots grecs introduits en grande partie par le christianisme."

(*c*) "L'invasion des Germains fit pénétrer dans la langue un grand nombre de mots allemands, dont l'étude jette un jour très clair sur les rapports des deux populations." Justify and expand this statement, giving examples of substantives, adjectives and verbs thus introduced.

II. In what ways does the order of the words in *La Chanson* differ from modern French?

III. How many case-forms for substantives are found in *La Chanson*, and what functions do these fulfil?

IV. Write the diminutives of *chapeau—femme—sac—porc—mouche—nègre.*

Historical Questions.

(*These may be answered in English or in French, but additional marks will be given for good French style.*)

A. What were the causes of the Reign of Terror?

B. State and justify your opinion of the morality of the *coup d'état* of 2nd December 1851.

Additional Literary Question.

Give some account and name the authors of: *La Jeune Captive; Consolation à M. du Périer; La Nuit de Mai; L'Espoir en Dieu; L'Année Terrible; Mémoires d'Outre-Tombe.*

FOURTH PAPER.

Thursday, 31*st March* 1898.—9 *to* 10.30 A.M.

Write an Essay on *one* of the two following subjects:—

1. The reciprocal influence exercised by French and English literature.

2. The types of character which manifest themselves at times of revolution (taking your illustrations mainly from the history of the great French Revolution).

GERMAN.

FIRST PAPER.

Monday, 28*th March* 1898.—2 *to* 5 P.M.

1. Translate into idiomatic English:—

(*a*) Die Wucht ſeines Stils, die Kraft ſeiner Beweisführung, Feuer und Leidenſchaft ſeiner Ueberzeugung wirkten hinreißend. So hatte noch Keiner zum Volke geſprochen. Jeder Stimmung, allen Tonarten fügte ſich ſeine Sprache; bald knapp und gedrungen und ſcharf wie Stahl, bald in reichlicher Breite ein mächtiger Strom

drangen die Worte ins Volk; bildlicher Ausdruck, schlagender Vergleich machte das Schwerste verständlich. Es war eine wundervolle schöpferische Kraft. Mit souveräner Leichtigkeit gebrauchte er die Sprache; sobald er die Feder ergriff, arbeitete sein Geist mit höchster Freiheit, man sieht seinen Sätzen die heitere Wärme an, die ihn erfüllte, der volle Zauber eines herzlichen Schaffens ist über sie ausgegossen. Solche Gewalt ist nicht am wenigsten sichtbar in den Angriffen, die er einzelnen Gegnern gönnt. Und eng verbunden ist sie mit einer Unart, die schon seinen bewundernden Zeitgenossen Bedenken verursachte. Er liebte es mit seinen Gegnern zu spielen, seine Einbildungskraft umkleidet ihm die Gestalt des Feindes mit einer grotesken Maske, und dies Fantasiebild neckt, höhnt und stößt er mit Redewendungen, die nicht gemäßigt und nicht immer anständig klingen. Aber gerade in seinem Schimpfen wirkt die gute Laune zumeist versöhnend, freilich nicht auf die Betroffenen. Fast nie ist kleine Gehässigkeit sichtbar, nicht selten die unverwüstlichste Gutherzigkeit. Zuweilen geräth er freilich in einen wahren Künstlereifer, dann vergißt er die Würde des Reformators und zwickt wie ein deutsches Bauernkind, ja wie ein boshafter Kobold. Wie hat er alle seine Gegner gezaust! Bald durch Keulenschläge, die ein zorniger Riese führt, bald mit der Pritsche eines Narren.

G. Freytag.

(*b*) Und nun entfaltete sich ein Bild von höchstem dramatischen Reiz. Im Vordergrunde wird ein glänzendes Hochamt celebriert, mit gebogenem Knie empfängt Erzbischof Albrecht, der große Ablaßkrämer, durch die päpstliche Gnade den Kardinalshut; der alte Kaiser, durchglüht von jugendlichem Feuer, wird feierlich angethan mit dem Symbol der heiligen Heerfahrt, dem Hut und dem Degen, welchen der Segen des Papstes selbst geweiht; in überschwänglicher Rede gemahnt ihn der Legat an die Wiederkehr des Tages, da sich Augustus durch den Sieg bei Actium die Herrschaft der Welt erstritten, und hält ihm als die lockenden Ruhmesziele des heiligen Krieges, die Kronen von Jerusalem und Konstantinopel vor. Im

Hintergrunde aber drängt sich in erregter Empörung die Masse der weltlichen und geistlichen Fürsten, mit Zorn und Verachtung schaut sie der prangenden Pose dieser erlauchten Spiegelfechter zu, mühsam hält sie den Widerspruch zurück: was ein Jahrhundert vergeblicher Reformanstrengungen an Erbitterung gegen die Finanzerpressungen der kurialen Geldgier angesammelt, verlangt in dieser Stunde nach Entladung, die Erregung von Wittenberg treibt auch hierher ihre Wellenschläge, man glaubt bestimmt zu wissen, daß der Türkenkrieg ebenso wie die Peterskirche nichts als ein trügerischer Köder ist, man verweist auf die Erbitterung des Volks, von dessen Schweiße sich die unersättliche Kurie mäste, zum unsäglichen Erstaunen des Kaisers erklären die Fürsten, wider alles Herkommen, sie müßten zu dem allen erst die Einwilligung ihrer Unterthanen einholen; in Reden und Streitschriften bricht die patriotische Erregung gegen Rom und seine Kourtisans hervor, und am Ende löst sich die glänzende Versammlung auf ohne alle greifbaren Ergebnisse. A. E. Berger.

(*c*) Was tröstete die Seele für den Verlust
Unwiederbringlicher Jugend? für den Hohn
Der stets boshaften Kurzsichtigkeit,
Welche, beklatschend lüsterne Bänkelsänger,
Taub scheint, sobald sie den gefühlstrunkenen Schwan hört?

Was tröstete die Seele? Nur des Gesangs
Allmählig wachsende süße Meisterschaft,
Und dein Anblick verleiht Trost, Natur!
Hier in das Gras gestreckt mit dem Auge schwelg' ich:
Schon schläft gebändigt die stahlglatte Salzflut,

Kaum spülend an den Strand; italischer Au'n
Südspitze schwimmt in dem reinsten Zauberduft,
Verklärt, voll Ruhe, schönabendlich;
Doch an des Aetna's äußerstem Fuße prangt der
Erdzunge liebliches, an Korn reiches Fruchtland:

Flach tritt in das erfreute Meer es hinaus,
Einladend; denn an dem ganzen Strand umher
Erscheint, unwirtlich, blos schroffer Fels.
Dort an der erntelachenden Stelle war es,
Wo Griechen landeten zuerst, durch den Liebreiz

Jungfräulichen Gefildes im Herzen erregt.
Voll Staunen sah'n sie der Insel Fülle, sah'n
Des Bergs Schneerücken dastehn im Rauch,
Sah'n das erhöhte fremde Gestad' Italiens
Sanft leuchten: innigere Sehnsucht ergriff sie;

Schnell warfen sie des Ankers doppelte Wucht,
Aufbauend Wohnungen, Tempel auch Apolls,
Des Weinstocks zarten, biegsamen Zweig
Pflanzend, damit des tröstlichen Reiseschlauchs
Niemals ermangele die schiffsmüde Mannschaft.

Doch, Freunde, wohin irrt der dichtende Geist?
Längst eingesargte Geschlechter weckt er auf,
Beseelt nochmals des Urzeitlichen
Traum. O genießt die freudebeschwingte Jugend,
Die krafterfüllt in dem Bewußtsein des Tags lebt!

H. v. PLATEN.

(*l*) Wie gegen Morgen, wann die Nacht die Macht verlor,
Allmählig dünner um die Sinne wird der Flor
Des Schlummers, der dir hat die Außenwelt verhängt,
Daß sie nun ein zu dir sich durch die Ritzen drängt;
Und heller hinterm Flor schon das Bewußtsein dämmert
Von dem, was gegen Ohr und Auge dumpf dir hämmert;
Des Wachens Bildertanz dem Traumgestaltenchor
Sich mischt, bis dieser ganz in jenem sich verlor.
So gegen's Ende, wann die Macht verliert das Leben,
Und sich der Schleier will vom Jenseits heben,
Tritt in dies Traumgewirr, das schon verworrner kreist,

Von höh'rem Wachen auch ein halbverhüllter Geist;
Daß mit dem Seelenaug' und mit dem Herzensohr
Du siehest, hörst, was du nicht hörtest, sahst zuvor.
Dann überhöre nicht die leisen Ahnungen,
Von reinerm Ton und Licht die fernen Mahnungen;
Von einem Licht, das sich mit diesem nicht verträgt,
Von einem Hauch, wodurch sich dieser Rauch zerschlägt;
Von Morgenluft, die macht den Duft der Nacht zerrinnen,
Vom Gruß, daß nun Verdruß muß und Genuß vonhinnen.
Dann träum' noch aus geschwind den Traum, der dich ergetzt,
Froh, daß er so gelind sich um ins Wachen setzt.

F. RÜCKERT.

(*e*) Wenn ich so saß bei einem Gelag,
Wo mancher sich berühmen mag,
Und die Gesellen mir den Flor
Der Mägdlein laut gepriesen vor,
Mit vollem Glas das Lob verschwemmt,
Den Ellenbogen aufgestemmt.
Saß ich in meiner sichern Ruh,
Hört' all dem Schwadronieren zu,
Und streiche lächelnd meinen Bart,
Und kriege das volle Glas zur Hand
Und sage: alles nach seiner Art!
Aber ist Eine im ganzen Land,
Die meiner trauten Gretel gleicht,
Die meiner Schwester das Wasser reicht?
Top! Top! Kling! Klang! das ging herum;
Die einen schrieen: er hat Recht,
Sie ist die Zier vom ganzen Geschlecht!
Da saßen alle die Lober stumm.
Und nun!—um's Haar sich auszuraufen,
Und an den Wänden hinauf zu laufen!—
Mit Stichelreden, Naserümpfen

Soll jeder Schurke mich beſchimpfen!
Soll wie ein böſer Schuldner ſitzen,
Bei jedem Zufallswörtchen ſchwitzen!
Und möcht' ich ſie zuſammenſchmeißen,
Könnt' ich ſie doch nicht Lügner heißen.

GOETHE.

(*f*) Wie ſeltſam glimmert durch die Gründe
Ein morgenröthlich trüber Schein!
Und ſelbſt bis in die tiefen Schlünde
Des Abgrunds wittert er hinein.
Da ſteigt ein Dampf, dort ziehen Schwaden,
Hier leuchtet Gluth aus Dunſt und Flor,
Dann ſchleicht ſie wie ein zarter Faden,
Dann bricht ſie wie ein Quell hervor.
Hier ſchlingt ſie eine ganze Strecke,
Mit hundert Adern, ſich durch's Thal,
Und hier in der gedrängten Ecke
Vereinzelt ſie ſich auf einmal.
Da ſprühen Funken in der Nähe,
Wie ausgeſtreuter goldner Sand.
Doch ſchau'! in ihrer ganzen Höhe
Entzündet ſich die Felſenwand.

GOETHE.

2. Answer *any two* of the following questions:—

(*a*) Zu welchen Zeiten und in welchen Richtungen iſt die deutſche Kultur von der romaniſchen, insbeſondere der franzöſiſchen, beeinflußt worden?

(*b*) Welchen Anteil haben Süddeutſchland und Norddeutſchland an der Entwicklung der deutſchen Kultur gehabt, und wie erklären ſich die hier zu Grunde liegenden Gegenſätze im Volkscharacter?

(*c*) Welche characteriſtiſchen Eigenſchaften des deutſchen Geiſtes treten in der deutſchen Litteratur hervor?

3. Answer *any two* of the following questions:—

(*a*) Welche geſchichtlichen Ereigniſſe, Perſönlichkeiten und Zuſtände

bilden den Hintergrund für das Leben und die Werke Walters von der Vogelweide?

(*b*) Wie ſtellten ſich im XVI. Jahrhundert die deutſchen Fürſten, der Adel, das Bürgertum und die Bauernſchaft zu den Tendenzen der Renaiſſance und der Reformation?

(*c*) Welches iſt die Bedeutung der Freiheitskriege für die moderne Entwicklung Deutſchlands?

SECOND PAPER.

TUESDAY, 29*th March* 1898.—9 A.M. *to* 12 NOON.

1. Translate into German:—

(*a*) Goethe, coming into an over-civilised time and country, when original talent was oppressed under the load of books and mechanical auxiliaries, and the distracting variations of claims, taught men how to dispose of this mountainous miscellany, and make it subservient. I join Napoleon with him, as being both representatives of the impatience and reaction of nature against the *morgue* of conventions—two stern realists, who with their scholars, have severally set the axe at the root of the tree of cant and seeming, for this time and for all time. This cheerful labourer, with no external popularity or provocation, drawing his motive and his plan from his own breast, tasked himself with stints for a giant, and, without relaxation or rest, except by alternating his pursuits, worked on for eighty years with the steadiness of his first zeal. R. W. EMERSON.

(*b*) Our sympathy is always more forcibly attracted towards the misfortunes of certain persons, and in certain descriptions: and this sympathetic attraction discovers, beyond a possibility of mistake, our mental affinities, and elective affections. It is a much surer proof, than the strongest declaration, of a real connexion and of an over-ruling bias in the mind. E. BURKE.

(*c*) And serve him right. Do *our* young artists study anything beyond the proper way of cutting a pencil, or drawing a model? Do you hear of *them* hard at work over books, and bothering their brains with musty learning? Not they forsooth: we understand the doctrine of division of labour, and each man sticks to his trade. Artists do not meddle with the pursuits of the rest of the world; and, in revenge, the rest of the world does not meddle with them. THACKERAY.

(*d*) It does seem, that when the opinions of masses of merely average men are everywhere become or becoming the dominant power, the counterpoise and corrective to that tendency would be the more and more pronounced individuality of those who stand on the higher eminences of thought. It is in these circumstances most especially, that exceptional individuals, instead of being deterred, should be encouraged in acting differently from the mass. In other times there was no advantage in their doing so, unless they acted not only differently but better.

J. S. MILL.

(*e*) The truth that was yesterday a restless problem has to-day grown a belief burning to be uttered: on the morrow, contradiction has exasperated it into mad fanaticism; obstruction has dulled it into thick inertness; it is sinking towards silence, of satisfaction or of resignation. To-day is not yesterday, for man or for thing. Yesterday there was the oath of Love; to-day has come the curse of Hate. Not willingly: ah, no; but it could not help coming. The golden radiance of youth, would it willingly have tarnished itself into the dimness of old age?—Fearful: how we stand enveloped, deep-sunk, in that Mystery of Time; and are sons of Time; fashioned and woven out of Time; and on us, and on all that we have, or see, or do, is written: Rest not, continue not, Forward to thy doom!

TH. CARLYLE.

2. Answer *any two* of the following questions:—

(*a*) Welche Argumente sprechen zu gunsten von Walthers Heimat in Tirol?

(*b*) Nach welchen Prinzipien hat man die Chronologie von Walthers Liebeslyrik zu bestimmen versucht?

(*c*) Worin offenbart sich Walthers Originalität im Vergleich mit der conventionellen Poesie seiner Zeit?

(*d*) Seit wann hat sich das Interesse der Waltherschen Poesie wieder zugewandt, welche Männer haben ein tieferes Verständnis derselben gefördert, und durch welche Umstände ist der Dichter neuerdings dem deutschen Volke näher gebracht worden?

3. Answer *one* of the following questions:—

(*a*) Welche „Gründe des Vorzugs der griechischen Kunst" führt Winckelmann an? Von wem entlehnt er diese Methode der Kritik, und wer hat sie nach ihm auf dem Gebiete der Litteratur angewandt?

(*b*) Was versteht Winckelmann unter dem „Ideal," der „Unbezeichnung," der „Nachahmung der Alten," und welche Wirkung hatte seine Lehre auf die Litteratur?

4. Answer *any three* of the following questions:—

(*a*) In welchen Perioden der Kulturgeschichte hat eine „Rückkehr zur Natur" stattgefunden? Wie unterscheidet sich Schiller von Rousseau in der Auffassung des Verhältnisses von Natur und Kultur?

(*b*) Wie erklärt Schiller den Gegensatz des modernen Naturgefühls gegen das Antike?

(*c*) Welche Stellung nimmt Schillers „naive und sentimentalische Dichtung" in der Geschichte der Kritik im XVIII. Jahrhundert ein?

(*d*) In wiefern ist Schillers Begriff der „Erholung" für seine Auffassung der Kunst characteristisch? Mit welcher Lehre aus der „aesthetischen Erziehung" steht derselbe im Zusammenhang?

5. Answer *any two* of the following questions:—

(*a*) Wie unterscheidet sich der Göchhausensche Faust vom „Fragment" und dieses vom „ersten Teil"?

(*b*) Welche Umſtände haben es Goethe nach dem Jahre 1776 ſchwer gemacht den Fauſt zu vollenden?

(*c*) Welche Gegenſätze beſtehen im Stoff und in der Behandlung zwiſchen „Fauſt" und „Iphigenie," und wie erklären ſich dieſelben aus Goethes Entwicklung als Menſch und als Künſtler?

THIRD PAPER.

WEDNESDAY, 30*th March* 1898.—2 *to* 5 P.M.

1. Translate *any three* of the following passages into modern German:—

(*a*) Ih wallôta sumaro enti wintro sehstic ur lante,
dâr man mih eo scerita in folc sceotantero:
sô man mir at burc ênigeru banun gifasta,
nû scal mih suâsat chind suertu hauwan,
bretôn mit sînu billiu, eddo ih imo ti banin werdan.

(*b*) Thar Maria uuas
mid iro suni selbo, sâlig thiorna,
mahtiges môder. Managoro drohtin
geng imu thô mid is iungoron, godes êgan barn,
an that hôha hus thar the heri dranc,
thea Judeon an themu gastseli.

(*c*) Ist thiu akus iu giuuezzit, zi theru uuurzelûn gisezzit, ouh harto gislîmit themo then si rînit. Nist boum nihein in uuerolti, nist ther fruma beranti, suntar siu nan suente inti fiur anauuente.

(*d*) Sô man aber purpurûn machôn uuile, sô sûochet
man diu animalia in demo mere diu latine conchylia
heizent, tiu ligent petâniu in zuein scalôn, tie scalâ
bluotênt, sô man siu brichet; mit temo bluote fareuuet
man dia purpurûn. Vuanda diu edelesta uuirt ze Tiro
unde sî ouh târ ze êrest uuard, pediu chît er tirio.

Comment on the following forms:—*wallôta, scerita, thiorna, suertu, gastseli, uuorolti, zuein, chît.*

What is the dialect of (*b*)? Give your reasons.
Comment on the metre of (*a*), (*b*), and (*c*).

2. Translate into modern German :—

(*a*) Frô Werlt, ich hân ze vil gesogen,
ich wil entwonen, des ist zît.
Dîn zart hât mich vil nâch betrogen,
wand' er vil süezer freuden gît.
Do ich dich gesach reht' under ougen,
dô was dîn schouwen wünnen rîch, des muoz ich jehen
al sunder lougen :
doch was der schanden alse vil,
dô ich dîn hinden wart gewar, daz ich dich iemer
schelten will.

Comment on :—*werlt*, *hân*, *gît*, *jehen*, *gesach*, *der schanden*.
What is the mediaeval conception of *Frau Welt* alluded to in this stanza?

(*b*) Vil tumbiu werlt, ziuch dînen zoum, wart' umbe, sich!
wilt dû lân loufen dînen muot, sîn sprunc der vellet dich :
der'st manicvalt in dînem herzen umbe hort.
der freut dich hie und ist ein werendez leit der sêle dort.
lâ rehten sin den bœsen muot von dir vertrîben ;
dû minne got, so mâht dû wol belîben ;
wirp umbe lop mit rehter fuoge, und wellest dû genesen ;
den bœsen ræten solt dû gar unheimlich wesen ;
geloube swaz die pfaffen guotes lesen.
wilt dû'z dann allez übergülden, sô sprich wol von wîben.

(*c*) Swer mir ist slipfig als ein îs
und mich ûf hebt in balles wîs,
sinewelle ich dem in sînen handen,
daz sol z'unstæte niemen an mir anden,
sît ich dem getriuwen friunde bin
einlœtig unde vol gevieret.

swes muot mir ist sô vêch gezieret,
nû sus nû so, dem walge ich hin.

Comment on :—*handen, anden, ziuch, sich.*

(*d*) Lât mich an eime stabe gân
und werben umbe werdekeit
mit unverzageter arebeit,
als ich von kinde hân getân,
sô bin ich doch, swie nider ich sî, der werden ein,
genuog in mîner mâze hô,
daz müet die nideren ; obe mich daz iht swache ? nein
die biderben hânt mich deste baz.
diu wernde wirde diu'st so guot,
daz man ir'z hœhste lop sol geben.
ez'n wart nie hovelîcher leben,
swer sô dem ende rehte tuot.

Comment on :—*mîner mâze, biderben, baz, hovelîch, deste.*

What is peculiar in the form of this stanza ?

What does the poet mean by "*an eime stabe gân*"?

(*e*) Tristrant môste sonder danc
stâde sîn der koninginne,
Wand in poisûn dar tô dwanc
mêre dan die kraht der minne.
Des sal mir die gôde danc
weten, dat ich nien gedranc
alsolh pîment end ich sie minne
bat dan er, end mach dat sîn.
wale gedâne, valskes âne
lâ mich wesen dîn
ende wis du mîn. H. v. Veldeke.

(*f*) De Pyll sindt in des Reszen Macht,
Wann he will gan tho Stryde,
Und schüth sze wor he hefft gedacht
Tho rechten Stede und Tyden :

Szo sindt all Minschen jungk und alt
In Gades Macht und syner Gewaldt,
He will sze all vorsorgen.
Drumm lath unsz truwen up syn Wordt
Und sehn up syne Hande:
He werdt unsz helpen hir und dort,
Wy werden nicht tho schanden,
Den Kocker he uns vüllen will,
Szo hebben wy gewunnen spill
Vor unszen Vyenden allen. B. WALDIS.

Comment on the dialect of passages (*e*) and (*f*), and illustrate by other examples the change of consonant as seen in *kraht*.

3. Translate any two of the following passages into Middle-High German prose:—

(*a*) Der Reif und auch der kalte Schnee,
Der thut uns armen Reutern weh,
Was sollen wir nun beginnen?
Wenn wir die Straszen nicht reiten können,
Was haben wir denn zu verzehren?

(*b*) Nun ruhen alle Wälder,
Vieh, Menschen, Stadt und Felder,
Es schläft die ganze Welt;
Ihr aber, meine Sinnen,
Auf, auf, ihr sollt beginnen,
Was eurem Schöpfer wohlgefällt.

(*c*) Es grünet in den Wälden
Die Bäume blühen frei,
Die Röslein auf den Felden
Von Farben mancherlei;
Ein Blümlein steht im Garten,
Das heiszt: Vergisz nicht mein,
Das edle Kraut Wegwarten
Macht guten Augenschein.

4. Answer the following questions:—

(*a*) In welchen neuhochdeutschen Worten haben sich Eigentümlichkeiten der alt- und mittelhochdeutschen Flexion und des älteren Lautstandes erhalten?

(*b*) In welcher Weise gestaltete sich die Entwicklung der neuhochdeutschen Schriftsprache durch und seit Luther? Wodurch unterscheidet sich das Deutsch Luthers von dem heutigen?

(*c*) Welche Bedeutung hat das Studium der deutschen Etymologie für die deutsche Kultur- und Sittengeschichte? Man erweise dieselbe an einigen prägnanten Beispielen.

(*d*) Auf Grund welcher Anschauungen und nach welchen sprachlichen Gesetzen hat sich im Deutschen die Fixierung des grammatischen Geschlechts der Hauptwörter vollzogen?

FOURTH PAPER.

THURSDAY, 31*st March* 1898.—10.30 A.M. *to* 12 NOON.

Subjects for a German Essay:—

(1) Man begründe im Einzelnen die folgende Bemerkung G. Freytags:—

> "So war Luther eine dämonische Natur, schwerflüssig und scharf begrenzt sein Geist, gewaltig und massvoll sein Wollen, rein seine Sittlichkeit, voll Liebe sein Herz. Weil sich ausser ihm keine andere Manneskraft erhob, stark genug Führer der Nation zu werden, hat das deutsche Volk für Jahrhunderte die Herrschaft auf der Erde verloren. Die Herrschaft der Deutschen im Reiche des Geistes aber ruht auf ihm."

Or,

(2) Der Teufel des Mittelalters und Goethes Mephistopheles.

Or,

(3) Die Bedeutung der italienischen Reise für Goethes Leben und Kunst.

(F)—HISTORY.

CONSTITUTIONAL HISTORY AND LAW.

FIRST PAPER.

FRIDAY, *25th March* 1898.—9 *to* 12 *o'clock.*

(*The* 12TH *and* ANY FIVE *other Questions to be answered.*)

1. Write a short essay on the consolidation of the English polity by William the Conqueror.

2. "All the evils of feudalism are illustrated by the reign of Stephen." Explain, discuss, and compare these evils with the "bastard feudalism" of the fourteenth and fifteenth centuries.

3. State the substance of the Constitutions of Clarendon, and explain their legal and constitutional importance.

4. Describe the circumstances under which the Great Charter was extorted from King John. Mention its chief provisions for securing the liberty of the subject. What is the special force of—*nec super eum ibimus, nec super eum mittemus*?

5. Sketch the history of parliamentary representation, particularly from 1213 to 1295.

6. "Parliament demands the appointment of ministers" (1244). Trace and explain the history of such demands down to the close of Henry IV.'s reign.

7. What were the provisions, and what the constitutional importance, of the statutes of Mortmain, *Quia Emptores*, and *De Asportatis*? And what of the *Confirmatio Cartarum*?

8. Write a short account of the relations between State and Church (*temp.* Edward III. and Richard II.), with special reference to the statutes of Provisors and Præmunire.

9. Distinguish between "impeachment" and "attainder." Trace their origins, and discuss their uses and abuses.

10. Six election statutes were passed in the first half of the

fifteenth century. What was their nature, and what their important bearing on the representative system?

11. "The Lancastrians reigned constitutionally." "They allied themselves with the Church." Explain and reconcile these statements.

12. Translate, explain, and discuss *three* of:—

(*a*) "Inquisitio terrarum . . . quo modo vocatur mansio; . . . quantum valebat, et quantum modo; . . . et si potest plus haberi quam habebatur."—"Swa swythe nearwelice he hit lett aspyrian thæt næs an ælpig hide ne an gyrde landes . . . that næs gesæt on his gewrite."

(*b*) "De advocatione et præsentatione ecclesiarum si controversia emerserit inter laicos, vel inter laicos et clericos, vel inter clericos, in curia domini regis tractetur vel terminetur."—"Si archiepiscopus defecerit in justitia exhibenda ad dominum regis perveniendum est postremo."

(*c*) "Rex itaque ob hanc causam interdicti mente confusus omnia bona clericorum fecit confiscari."—"Sperandum est autem et certissime confidendum quod quædam bona opera quæ fecit in hac vita allegabunt pro eo ante tribunal Jesu Christi."

(*d*) "Statuerunt quod dominus rex haberet xii de consilio suo electos per totam communam Angliæ et eorum niteretur consilio et sine eis nihil magnum faceret."—"Si fet a remembrer ke le commun eslise xii prodes hommes, ke vendrunt as parlemenz . . . pur treter de besoinges de rei et del reaume."

(*e*)

So pore a kyng was never seene,
Nor richer lordes alle bydene;
The communes may no more. . . .
But yef the commyns of Englonde
Helpe the king in his fonde,
Suffolk wolle bere the crowne.

SECOND PAPER.

History of State and Church—1384-1563.

Friday, 25*th March* 1898.—2 *to* 5 p.m.

(*Answer No.* 9 *and* any five *others.*)

1. Define Wycliffe's place in political history.

2. Sketch briefly Wycliffe's influence on religious thought in England down to 1515. Demonstrate the continuity of the Reformation movement.

3. What is meant by the Bohemian Revival? Show its connection with England.

4. Trace in outline the career of Peter Payne.

5. Describe the relations of State and Church from the death of Wycliffe to the time of Bishop Pecocke.

6. What do you know of the life and work of Sir John Fortescue?

7. Who were the "Oxford Reformers," and what their doctrines?

8. Mention the chief points of interest in the "Utopia" or in the "Praise of Folly."

9. Explain and discuss *three* of—

(*a*) "Pieres," quod a prest tho, "thi pardoun most I rede,
For I will construe eche clause, and kenne it the on engliche." . . .
"Peter," quod the prest tho, "I can no pardoun fynde,
But dowel and have wel, and god shal have thi sowle!"

(*b*) "Mani foul errouris multipled Wiclef more than Berengari."—"Works of superogation, indulgences, and letters of fraternity."—"Whan Adam dalf and Eve span."—"They condempned him for a heretik and left him to the seculere arm."

(*c*) "Nam non potest rex Angliæ leges mutare, principatu namque nedum regali, sed et politico, ipse suo populo domina-

tur."—"So is the king's power more in that he may not put ffrom him possescions necessaries for his own sustenance."

(*d*) "Il Cardinale cominciò a persuadere al Re che, ripudiata la prima moglie, contrahesse un' altro matrimonio."—"Partorirono queste cose la rovina del Cardinale."

THIRD PAPER.

PERIOD 1688 TO 1707.

MONDAY, *4th April* 1898.—9 *to* 12 *o'clock.*

(SIX *Questions at most to be answered.*)

1. Give a brief account of the events which led to the Revolution of 1688-89.

2. Define the "new kingship" established by the Revolution, and compare or contrast it with the Anglo-Saxon, the Lancastrian, the Tudor, and the Stuart kingship.

3. Enumerate the chief points of constitutional moment in the Bill of Rights and the Succession Act.

4. On what grounds are (*a*) the Mutiny Act, and (*b*) the Toleration Act regarded as landmarks in constitutional history?

5. Trace the history of the chief political parties from their origins down to 1707. What is meant by party government? Discuss its merits.

6. Sketch the history of the question as to the frequency and duration of Parliaments down to the Triennial Act of 1694. Discuss the question briefly.

7. Define the place of William III. in constitutional history.

8. Describe and discuss the nature and the results of the Union (1707).

FOURTH PAPER.

MODERN EUROPEAN INSTITUTIONS. *See page* 804.

BRITISH HISTORY.

FIRST PAPER.

MONDAY, *28th March* 1898.—9 *to* 12 *o'clock.*

N.B.—*Not more than* FOUR *questions to be attempted in each Section.*

SECTION I.

1. Give an outline of the work done by the Celtic Christian Church, and explain why it succumbed to the Roman Church.

2. How do you account for the success of Wessex in maintaining supremacy in England while Northumbria and Mercia failed?

3. Stubbs says of the English constitution: "The Norman superstructure was welded on to the Anglo-Saxon superstructure." Give illustrations.

4. What circumstances contribute to make the reign of David I of great importance in early Scottish history? Criticise James VI's description of him as "ane sair sanct for the croun."

5. Trace the effects of Edward III's French wars (1) on the development of Parliament, (2) on the social and economic condition of England.

6. Explain and illustrate the great power of the Barons under the Lancastrian kings. What caused the decay of that power?

7. What steps had been taken to make Ireland English before the accession of Elizabeth, and why had they been unsuccessful?

SECTION II.

8. Show how Henry VII (1) established his throne firmly at home, (2) made his influence felt in Europe.

9. What are the distinctive characteristics of the Reformation in the reigns of Henry VIII, Edward VI, and Elizabeth respectively?

10. Describe the growth of the British Colonies in America down to 1640.

11. Compare the political and ecclesiastical condition of Scotland under William III with what had existed under Charles II.

12. Sketch the rivalry between Britain and France for supremacy in India, and show how the command of the sea was a determining factor in the result.

13. What arguments can you adduce for and against the view that the younger Pitt was a failure as a War Minister?

14. What were the leading principles in the foreign policy of Aberdeen *or* of Palmerston? Illustrate by a few typical incidents.

SECOND PAPER (SPECIAL PERIOD).

MONDAY, 28*th March* 1898.—2 *to* 5 *o'clock.*

N.B.—*Not more than* EIGHT *questions to be attempted, of which at least* THREE *should be taken from the Second Section.*

SECTION I.

1. Sketch the life of Hubert de Burgh, and estimate his ability as a statesman.

2. Trace and explain the rise of the baronial opposition between 1232 and 1257.

3. Give some account of the territorial expansion of Scotland in the 13th century.

4. Explain the initial success and the eventual failure of Simon de Montfort.

5. Criticise the policy of Edward I towards Scotland.

6. Describe the events and circumstances which led to the crisis of 1297, and explain its constitutional importance.

7. How far may Thomas of Lancaster be justly charged with (*a*) political incapacity, (*b*) excessive devotion to the interests of his order?

Section II.

8. What are the chief contemporary authorities for British history in the 13th century? Estimate their respective importance.

9. Translate and comment on the following passages:—

(*a*) Homines qui manent extra forestam non veniant de cetero coram justiciariis nostris de foresta . . . nisi sint in placito, etc.

(*b*) Scutagium capiatur de cetero sicut capi consuevit tempore Henrici regis avi nostri.

(*c*) Provisum est etiam quod singuli vicecomites una cum duobus militibus . . . convenire faciant coram eis . . . libere tenentes, villanos et alios . . . et eosdem faciant jurare ad arma.

(*d*) Sicut lex justissima, provida circumspectione sacrorum principum stabilita, statuit ut quod omnes tangit ab omnibus approbetur, etc.

10. Give the chief enactments of the Provisions of Westminster, the Mise of Amiens, the Dictum of Kenilworth, the Statute of Winchester, with dates.

11. Give some account of John Barbour, and discuss the historical value of his poem, *The Brus*.

12. What does Barbour say about the following:—the staying of Comyn; how Bruce escaped the sleuth-hound; the battle of Loudoun Hill; the winning of Edinburgh Castle; the Chapter of Mytton?

Great Britain and Europe, 1815-1878.

first paper.

Tuesday, 29*th March* 1898.—9 *to* 12 *o'clock.*

N.B.—*Not more than* eight *questions to be attempted, of which at least* two *should be taken from the second Section.*

Section I.

1. How far may British foreign policy be called continuous during the period 1820-1830?

2. Examine the influence exercised in Germany by Austria and Prussia respectively, during the rule of Metternich.

3. Compare the careers and aims of Don Carlos and Don Miguel.

4. Relate the events which led to the Treaty of the Straits (1841).

5. Give an account of the Belgian Revolution *or* of the Sonderbund War.

6. Compare the French Revolution of July with that of February in respect of their general causes and immediate occasions.

7. Describe the steps which led to the assembly of the national parliament at Frankfort.

8. Analyse the causes and results of the Piedmontese defeat at Custozza in 1848.

Section II.

9. What is your estimate of the value of Lamartine and Louis Blanc as authorities for the Revolution of 1848?

10. What does Lamartine say about the following matters—the formation of the Provisional Government; the socialistic parties; the difficulties of the Polish question; his own conduct during the insurrection of June?

11. Mention and discuss any cases you can recall, in which

Louis Blanc blames Lamartine's conduct, or corrects his statements with regard to the Revolution.

12. Comment on the following passages from Louis Blanc:—

(*a*) Le décret du 26 février ayant fourni matière à une foule d'attaques passionnées, j'en confierai la défense à . . . le premier économiste de notre époque—M. John Stuart Mill.

(*b*) Si le principe de non-intervention est décidément inviolable, d'où vient . . . que les gouvernements de l'Europe l'ont violé à trois reprises?

(*c*) Lord Normanby écrit: On assure que, dans les basses classes, tous ceux que Louis Blanc peut influencer sont en faveur du mouvement bonapartiste.

(*d*) La dissolution des ateliers nationaux n'eût pas abouti à la guerre civile, si elle n'eût fait partie d'un ensemble de mesures . . . qui violaient le principe de la justice.

SECOND PAPER.

TUESDAY, 29*th March* 1898.—2 *to* 5 *o'clock.*

N.B.—*Not more than* EIGHT *Questions to be attempted.*

1. Trace the steps by which Louis Napoleon made himself Emperor of the French, and explain the political and social conditions which favoured his enterprise.

2. What can be said for and against the opinion that the Crimean War was, both from a political and a military point of view, a "Tragedy of Errors."

3. Compare the work of Victor Emmanuel, Cavour, and Garibaldi as Makers of Italy.

4. Criticise the contention of Napoleon III (1) that the Empire was peace; (2) that it was the champion of oppressed nationalities.

5. Sketch the course of events by which Prussia ousted Austria from the hegemony of the German States.

6. Trace the movement which gave rise to the Dual System in Austro-Hungary. Show that in avoiding one set of difficulties the arrangement gave rise to another.

7. Give an account of the Polish rising of 1863, *or* of the internal reforms carried out by Alexander II.

8. Compare the political organisation of the German States after the war of 1870 with that which had been established after the war of 1866.

9. How do you account for the triumph of Germany and the collapse of France in 1870?

10. Give an account of the Culturkampf in Germany, *or* of the dispute between the Papacy and the Italian Monarchy.

11. Describe the measures taken by the Great Powers of Europe from 1875 to 1877 for the peaceable settlement of the Eastern question, and account for their failure.

12. Point out any changes that in your opinion have increased or diminished the power of Britain between 1848 and 1878.

Papers for Degrees in Science.

FIRST SCIENCE EXAMINATION.

Pure Science.

[*For Papers in Mathematics, Natural Philosophy, Botany, and Zoology, see Papers in these Subjects for the Degree of M.A.; and for Papers in Chemistry, see Papers for First Professional Examination for Degrees in Medicine.*]

Engineering.

MATHEMATICS.

FIRST PAPER.

FRIDAY, 8*th October* 1897.—11.30 A.M. *to* 1.30 P.M.

1. Find an expression for the area of a circle whose radius and perimeter are known.

A piece of belting 100 feet long is passed round two wheels without crossing. If the radius of each wheel is 5 feet, find at what distance their centres must be put from each other in order that the belt may fit close.

Use your tables to solve the same problem approximately when the radii of the wheels are 10 feet and 5 feet respectively.

2. Find an expression for the volume of a cone of height h on an elliptic base whose major and minor axes are a and b respectively.

Given a rectangular mass of metal 12 feet by 10 by 8, find the content of the largest conical cavity that can be made in it, the opening at the surface being an ellipse.

3. Given a pile of spherical shell, each shell 10 inches in diameter and 2 inches thick, whose base is an equilateral triangle each side of which contains 10 shot; calculate the weight of the pile if a cubic inch of the metal weighs $\frac{1}{4}$ lb.

4. A cylindrical boiler of total length 12 feet and radius 3 feet has hemispherical ends. Find what weight of water it will hold.

5. Find an approximate expression for the volume of a thin spherical shell in terms of its radius and its thickness.

What is the radius of such a shell which weighs 1 kilo and is 1 cm. thick, and is composed of material weighing 8 grams per cubic cm.?

6. Find all the angles of a triangle having sides proportional to 13, 14, 15.

7. Determine two values of a such that for each of them the equation

$$x^3-3x^2+1=a$$

has two equal roots: and find between what integers each root of the equation lies when $a=0$.

8. Find an expression for the area of the quadrilateral whose angular points are

$$(\alpha,\beta)\ (\alpha',\beta')\ (\alpha,0)\ (\alpha',0).$$

Find the area of the convex pentagon whose angular points are

$$(0,0)\ (37,40)\ (68,49)\ (100,0)\ (37,-63).$$

9. Find the co-ordinates of the point dividing the line joining (x_1, y_1) to (x_2, y_2) in the ratio $m : n$.

$ABCD$ is any quadrilateral. The sides are gone round in the same order and divided alternately in the ratio $m : n$ and $n : m$ in the points $E\ F\ G\ H$. Shew that $EFGH$ is a parallelogram, and that its centre divides the line joining the middle points of the diagonals of $ABCD$ in the ratio $m : n$.

10. Find an expression for the tangent of the angle between the lines

$$ax+by+c=0,\ \ a'x+b'y+c'=0.$$

The base OA of a triangle OAB is fixed and equal to unity, and the vertex B moves in such a way that the angle at O is half the angle at A. Find the equation to the locus of B. Trace the locus and find its centre.

SECOND PAPER.

FRIDAY, 8*th October* 1897.—2.30 *to* 5.30 P.M.

1. C, D, E are three points on the same side of AB. Find the area of the pentagon $ABCDE$ in any way you please, given:—

$AB=43$ yards	$\angle BAC=36°$
$AC=70$,,	$\angle BAD=73°$
$AD=72$,,	$\angle BAE=100°$.
$AE=40$,,	

2. P is any point on the hyperbola $x^2-y^2=a^2$, and Q is the projection of the origin O on the tangent at P. Prove $OP.OQ$ constant and equal to a^2.

Find the equation to the locus of Q as P varies on the curve, and shew that its equation may be represented in polar co-ordinates by $r^2=a^2 \cos 2\theta$.

Find the area of one of the loops of this latter curve.

3. With the ordinary locus definition of a conic, find a form of the equation to the locus.

A line is drawn through the origin inclined at angle α to the x-axis. A point P moves so that its distance from this line is proportional to the square of its distance from the x-axis. Shew that the locus of P is a parabola.

Find its focus, and shew that the focus lies on a fixed straight line no matter what the proportion be, so long as α is kept constant.

4. Trace the curve

$$(x+y-1)^2+\lambda xy=0$$

for various values of λ; and find for what value of λ it is (1) a circle, (2) a parabola.

5. Shew how to find the co-ordinates of the centroid of a uniform plane area, the equation to whose perimeter in Cartesian co-ordinates is known.

An elliptic plate is cut in two along the major axis. Find the centroid of one of the pieces, being given that the density varies as the distance from the tangent at the extremity of the minor axis.

6. A cam $ABCDE$ is formed of two semicircular discs ABC and CDE of diameters $AC=8$ inches and $CE=18$ inches, placed base to base, and turns about a point O in the common base 6 inches from C. Find its centroid and its radius of gyration about the axis.

7. Roughly trace the curve (polar co-ordinates)—

$$r=ae^{\theta \cot \alpha}$$

and determine such values of a and α that, O in the preceding

question being the origin and OAE the prime radius vector, the curve will pass through A and E.

Will it also pass through C?

8. If $f(x)$ be a finite continuous function of x between $x=a$ and $x=b$, shew that a value ξ of x, lying between a and b, may be found such that $f'(\xi)=\{f(b)-f(a)\}/(b-a)$.

If the function be x^3+cx, find the point in question when $a=a$, and $b=2a$, and thence shew that in this case ξ is such that $(a-\xi)/(b-\xi)$ is constant for all values of a.

9. State the rule for the expansion of a determinant, and shew that if two rows are identical the determinant must vanish.

10. Find the value of the determinants—

(i) $\begin{vmatrix} 1 & 2 & 3 & 4 \\ 4 & 3 & 2 & 1 \\ 2 & 4 & 6 & 1 \\ 2 & 0 & 4 & 6 \end{vmatrix}$ and (ii) $\begin{vmatrix} \alpha & \beta & \gamma & \delta \\ \alpha^2 & \beta^2 & \gamma^2 & \delta^2 \\ \alpha^3 & \beta^3 & \gamma^3 & \delta^3 \\ \alpha^4 & \beta^4 & \gamma^4 & \delta^4 \end{vmatrix}$.

11. Differentiate

$$\sin x, \quad \cosh x, \quad \log \tan\left(x+\frac{\pi}{4}\right).$$

12. Integrate

(i) $\int dx\, x^2/(x-1)(x-2)(x-3)$,

(ii) $\int dx \tan x$,

(iii) $\int dx/x\sqrt{x^2-4}$.

Public Health.

LABORATORY WORK.

MONDAY, 21*st March* 1898.—10 *to* 12 *o'clock.*

1. Explain the terms *Saprophytic* and *Parasitic* as applied to micro-organisms, and illustrate your answer from (1) Mould, (2) Yeast, and (3) Fission Fungi. State what pathogenic

micro-organisms (if any) can live in both ways, and what bearing this has on the etiology of certain diseases.

2. Organic Matter in Potable Water.—Discuss the information that can be got from the results, as—

(*a*) Free and Albumenoid Ammonia

(*b*) Oxygen required.

(*c*) Organic Carbon and Nitrogen.

3. State the law of the solubility of gases in water.

PRACTICAL WORK.

The following are examples of what have been given at the Examinations:—

(*This part of the Examination lasts four days.*)

1. Quantitative determination of—

(1) Carbonic Acid, and

(2) Ammonia in the Atmosphere.

2. Bacteriological examination of Soil, and making culture media.

3. Analysis of, and report on, a sample of potable water.

Each Candidate must recognise Bacteriological Cultures by means of Cultivation, Staining, and Microscopical Examination.

PHYSICS.

Monday, 21*st March* 1898.—1 *to* 3 p.m.

1. Distinguish carefully the following terms from one another—Extensibility, Elasticity, Rigidity, and Viscosity. Give examples.

2. Explain the terms Dew Point and Humidity. How may each be measured?

3. Distinguish between refraction and dispersion of light.

Explain the purpose of an achromatic combination of lenses, and show how this purpose is effected.

4. Describe and explain the function of any three of the following instruments: an Organ Pipe, a Galvanometer, a Maximum Thermometer, a Compound Microscope.

5. Give a general description of the phenomena that may accompany an electrical discharge through a vacuum tube.

6. Define the units of mass and force in the C.G.S. system of units. What reasons have we for suspecting a variation in the Second, and what means have been suggested of testing this variation?

7. A magnetic needle is suspended so as to have perfect freedom of motion about its centre of mass. A strong bar magnet is placed in an east or west position beside it and then slowly moved away southwards. Describe the motion of the needle.

8. An electric condenser is put to earth by (1) a short stout wire, (2) a very long thin straight wire, (3) a long closely coiled wire. What differences are there in the effects? Account for the loss of energy.

9. It has been suggested that at high tide water should be stored up and used at low tide to drive machinery. Explain the source of the energy and the effect of its abstraction.

10. A pipe 2 inches in diameter contains steam at a pressure of 50 lbs. weight per square inch. Find the necessary strength of the pipe.

GEOLOGY.

TUESDAY, 22*nd March* 1898.—1 *to* 3 *o'clock.*

1. Draw a Section to illustrate the following structures:—Anticline, Syncline, Unconformity, Outlier, and Dyke.

2. Give some account of Natural Springs.

3. Describe the weathering of Granite, Limestone, and Basalt.

4. What are the distinguishing characters of a Neck?

5. Describe the formation of Stalactites and Stalagmites.

6. What is the origin of Soil and Subsoil?

7. In searching for an Artesian water-supply, what are the various Geological considerations to be kept in view?

8. How are Landslips caused?

FINAL SCIENCE EXAMINATION.

Pure Science.

MATHEMATICS.

NATURAL PHILOSOPHY.

The papers in Mathematics and Natural Philosophy are the same as for the Degree of M.A. with Honours in Mathematics and Natural Philosophy.

ASTRONOMY.

FIRST PAPER.

SATURDAY, *9th October* 1897.—9 A.M. *to* 12 NOON.

1. Describe the Sextant. Show that if a ray of light suffers two successive reflections in the same plane by two plane mirrors, the angle between the first and last directions of the ray is twice the angle between the mirrors.

Prove that the Dip of the Horizon measured in minutes of arc is approximately the square root of the altitude of the station reckoned in feet, the earth's diameter being taken as 7912 miles.

2. The altitudes of two stars as they simultaneously pass the prime vertical are observed; the difference of their right

ascensions is known. Show how the latitude of the place may be found.

3. How can absolute declinations be determined by means of a Transit Circle?

4. Show that the effect of eccentricity on circle readings is removed by the employment of two verniers 180° apart. How is the amount of eccentricity determined? Construct a numerical example to illustrate the method.

5. The sun's image is observed to pass over a Ring Micrometer. If the interval of time between the two external contacts is t_1 and between the internal t, show that the radius of the ring is given by

$$\frac{(15\cos\delta)^2}{16R}(t_1^2-t^2)$$

where δ and R are the Sun's declination and semidiameter respectively.

6. How can the Obliquity of the Ecliptic be determined? Describe fully any method.

7. Define Parallax, and show that the parallax of a celestial body varies as the sine of its apparent zenith distance. If the Solar parallax is 8″.8 and the earth's radius 3960 miles, show that the Sun's distance $=92.8\times10^6$ miles.

8. A vertical pole stands on a horizontal plane at a place whose latitude is the complement of the sun's declination, supposed constant for the day. Show that the extremity of the shadow traces out a parabola.

SECOND PAPER.

SATURDAY, *9th October* 1897.—1 P.M. *to* 3 P.M.

1. In what position has a star no aberration in longitude, and when does it have a negative aberration in longitude only?

Show that the effect of aberration on the observed distance (S) of two stars is

$$k \tan \frac{S}{2} [\cos \lambda_1 \sin (\odot - l_1) + \cos \lambda_2 \sin (\odot - l_2)]$$

where k is the constant of aberration, λ_1, l_1 and λ_2, l_2 the latitude and longitude of the stars respectively, and $\odot$ the longitude of the sun.

2. Show that the effect of refraction on the distance (S) of two stars measured with a filar micrometer is very approximately

$$k S \{\tan^2 z \cos^2 (p-q) + 1\}$$

where k is the constant of refraction, z the zenith distance, and p and q the position angle and parallactic angle respectively.

3. Find the relations connecting the mean and eccentric anomalies, and the eccentric and true anomalies in an elliptic orbit.

A diameter is drawn through one of the extremities of the latus rectum. Show that the ratio of the times in the two halves of the orbit is

$$\frac{\pi - \sin 2\psi}{\pi + \sin 2\psi}$$

where $\cos \psi =$ eccentricity.

4. Explain the method by which accurate values of the elements of a comet's orbit can be obtained, when approximate values of those elements have been found.

5. What is the use of a table of parabolic anomalies? How can such a table be modified to give the anomalies in the case of ellipses of very great eccentricity? If the chord of a parabola and the focal distances of its extremities are known, find the time of describing the arc.

6. Prove that the moon's orbit is everywhere concave to the sun.

CHEMISTRY.

MONDAY, 19*th July* 1897.—9 *to* 12 *o'clock.*

FIVE *questions to be answered.*

1. What are the more important oxidising agents? Give examples of their action, with equations.

2. What are the principal oxides of chromium, and how may they be prepared from potassium dichromate?

3. What relations have been found to exist between optical activity and chemical constitution in organic compounds? Give examples of substances in which these relations may be observed.

4. How are ketones prepared? In what respects do these substances differ from aldehydes?

5. How would you convert alcohol into:—ether, acetic acid, aldehyde, ethyl chloride, chloroform, ethyl sulphate?

6. Describe two methods for the separation of nickel and cobalt. Give the rationale of these methods.

7. Describe and explain the action, at a red heat, of (*a*) hydrogen on iron oxide, and (*b*) water vapour on metallic iron.

8. An organic acid gave the following results on combustion:—·1653 gram of the acid gave ·107 gram H_2O and ·338 gram CO_2; ·203 gram of the silver salt left on ignition ·1135 gram Ag. What is the simplest empirical formula for the acid? [$H=1$, $C=12$, $O=16$, $Ag=108$.]

HUMAN ANATOMY (INCLUDING ANTHROPOLOGY).

FIRST PAPER.

WEDNESDAY, 21*st July* 1897.—9 *to* 12 *o'clock.*

1. State the mechanical arrangements at the hip and knee joints which maintain the erect posture in the act of standing.

[*Insertion—Page* 722.]

CHEMISTRY (SECOND PAPER).

MONDAY, 19*th July* 1897.—1 *to* 3 *o'clock.*

(FIVE *Questions to be answered.*)

1. How may nitrides and carbides be prepared? Give a short account of the action of reagents on these substances.

2. How may ethylic ketipate be prepared, and how may this substance be converted into diacetyl? Give the name and the mode of preparation of another 1, 2, diketone, and the general characters of the group.

3. What is the configuration of arabinose, and how has this been deduced? In what respects does arabinose differ from xylose?

4. Describe, as fully as you can, the more important copper minerals, especially those which constitute ores of copper.

5. The following results are obtained in the analysis of a mixture of methane, carbonic oxide, hydrogen, and nitrogen:—

Volume of sample taken, ...	15·36
,, after addition of oxygen, . .	35·01
,, ,, explosion, ...	14·55
,, ,, absorption of carbonic anhydride,	3·81
,, ,, ,, residual oxygen,	0·80

All the readings are taken under constant conditions of temperature, pressure, and humidity. Calculate the composition of the sample.

6. Describe in detail two methods of determining the vapour density of a volatile liquid.

7. Give a short historical account of each of the following theories:—

Dumas' Theory of Substitution.
Gerhardt's Theory of Types.
Williamson's Theory of Etherification.

8. How many isomeric modifications (*a*) of lactic acid, and (*b*) of tartaric acid have been obtained? How can each be prepared? How may the occurrence of these isomeric substances and their relations to polarised light be explained?

2. Describe the anatomy of the shoulder joint, and especially dwell on those aspects of its structure which contribute to freedom of movement.

3. Through which foramina in the skull do the nerves of special sense proceed? What nerves pass to the tongue; and state their region of distribution?

4. Draw up a comparative table to show in what respects the right and left sides of the heart agree with and differ from each other.

SECOND PAPER.

WEDNESDAY, 21*st July* 1897.—1 *to* 3 *o'clock.*

1. Give the usual method of making finger-prints. Describe their general characters. What value can be attached to them as means of personal identification?

2. What peculiarities have been observed in the form of the tibia which are regarded as being associated with the squatting attitude?

3. Describe the process which you would follow in order to take the internal capacity of the cranium.

4. What is meant by the term prognathism? What methods would you follow in order to determine its extent in a human skull?

PHYSIOLOGY.

WEDNESDAY, 23*rd March* 1898.—9 *to* 12 *o'clock.*

1. (*a*) What are the microscopical constituents of a typical animal cell, and by what histological processes have they been recognised?

(*b*) Describe the changes which the cell undergoes in Mitosis.

2. Give an account of the chief observations that have been made on vaso-dilator nerves in different parts of the organism.

3. Describe and criticise the experimental methods that have been employed for the purpose of ascertaining the number of nerve impulses per second transmitted to a muscle when it is kept in sustained voluntary contraction.

4. What is known regarding the sources of Uric acid in birds and mammals?

ZOOLOGY.

FRIDAY, 25*th March* 1898.—10 *to* 1 *o'clock.*

1. What do you understand by Degeneration? Illustrate your answer by giving a short account of the development and degeneration of an Ascidian.

2. Write a short account of the Anteaters. Give their distribution, and point out how they differ from other Edentates.

3. Contrast the mammalian fauna of Africa and South America.

4. Mention three types of the Cephalopoda group. Point out how the Cephalopoda differ from the Gasteropoda, and how the eye of Sepia differs from that of a fish in its structure and development.

5. Describe the foetal appendages in Marsupials, and point out (1) how they agree with, and (2) how they differ from, the corresponding structures in Eutheria.

6. Write a short essay on Karyokinesis.

BOTANY.

FIRST PAPER.

MONDAY, 21*st March* 1898.—9 *to* 12 *o'clock.*

1. Arrange the Fungi in a classification which will best show

their genetic relationships. Give the characters of the groups you name.

2. Write a morphological account of Monocotyledons. Point out briefly the leading characters of the chief Natural Orders of Monocotyledons, indicating resemblances and differences between the Orders.

3. Give an account of the structure and development of propagative organs, both sexual and assexual, in the Rhodophyceae. Of what value are these organs for taxonomic purposes?

4. Which, in your opinion, is the oldest group of the true Filices? State the grounds for the view which you adopt.

GEOLOGY.

(*Including Mineralogy and Palæontology.*)

FIRST PAPER.

SATURDAY, 26*th March* 1898.—10 *to* 1 *o'clock.*

1. A river flows north along the strike of strata dipping west at angles of 15° to 20°:—on which side of the river are cliffs most likely to be developed? Give reasons for your answer.

2. How would you distinguish Gold from Chalcopyrite, Quartz from Orthoclase, Calcite from Barytes, and Hornblende from Zinc-blende?

3. Give the mineralogical characters and modes of occurrence of Labradorite, Biotite, Aragonite, Marcasite, Gypsum, and Chalcedony.

4. Describe the composition, microscopic structure, occurrence, and origin of Tachylite, Dolomite, Serpentine, Palagonite, Anthracite, and Rhyolite.

5. What is the origin of Escarpments? Mention some well-known examples.

6. Construct a Table of the Tertiary Systems, and place opposite each the names of some characteristic fossils.

7. Describe the structure of a Graptolite.

8. How may a fault be detected even when it is not exposed in sections?

9. Draw a section across Central Scotland from the base of the Grampians to the Lammermuir Hills.

10. In what various ways have Breccias been formed?

SECOND PAPER.

SATURDAY, 26*th March* 1898.—2 *to* 4 *o'clock.*

1. What facts point to the chemical corrosion of certain ingredients of igneous rocks? Cite examples, and explain their origin.

2. Give an account of the changes superinduced by thermal metamorphism of (*a*) slates, (*b*) limestones.

3. By what characters, macroscopic and microscopic, would you recognise Nosean, Rutile, Riebeckite, Andalusite, Topaz.

4. Describe the microscopic characters of Laurvikite, Leucitophyre, Augite Granulite.

5. Describe in outline the methods by which it is possible to discriminate between the species of rock-making felspars.

Engineering.

ENGINEERING.

MONDAY, 28*th March* 1898.—9 *to* 11 A.M.

1. A surveyor at point *A* finds that the top of a tower at *B* subtends an angle θ. He moves at right angles to the line *AB*,

for a distance l to point C on the same plane, when he finds that the top of the tower subtends an angle ϕ. What is the height of the tower in terms of l, θ, and ϕ?

2. Find the cubic contents of a Reservoir embankment 1200 yards long, 100 feet high at the centre, tapering out to 0 at the ends, the outer slope being 3 to 1, and the inner slope 2 to 1, and width at the top 20 feet.

3. Sketch a section of the above embankment at the centre, showing the proper sections of the puddle wall and how the outside and inside slopes should be protected.

4. What is the approximate crushing load per square foot on good freestone ashlar, and what is the safe load to place on a short column 24 inches square?

5. Sketch a main girder for an ordinary single line railway bridge, 35 feet span, giving the dimensions of the various parts and a note of how the strains are found.

NOTE.—*Answers should, as far as possible, be illustrated by sketches or diagrams.*

MONDAY, 28*th March* 1898.—3 *to* 5 P.M.

1. Write out an imaginary page of a Level Book from point A which is 143·15 feet above datum to point B which is 98·37, changing the position of the instrument 5 times.

2. Calculate the offsets from a tangent to a curve of 40 chains radius at the following distances from the point where the tangent touches the curve—25 feet, 50 feet, 120 feet, 440 feet.

3. Sketch an arched truss for a Station Roof for a span of 200 feet, the trusses to be 40 feet apart and the load to be $\frac{1}{2}$ cwt. per square foot.

4. The bottom boom of a steel girder consists of 3 plates each 18 inches by $\frac{3}{4}$ inch connected to the web by two angles 4 inches by 4 inches by $\frac{3}{4}$ inch. Sketch a joint to embrace all

the three plates, but not the angles, showing the positions and sizes of the rivets.

5. Explain the method of gauging streams, and also the general rules for arriving at the approximate amount of available water to be obtained from a given area.

NOTE.—*Answers should, as far as possible, be illustrated by sketches or diagrams.*

TUESDAY, 29*th March* 1898.—9 *to* 11 A.M.

1. Explain how to test and permanently adjust, (*a*) the Box Sextant, (*b*) the Transit Theodolite, (*c*) the Dumpy Level.

2. A uniform rectangular bar supported at the ends is deflected by a load placed in the middle. If f be the maximum stress in the bar, show that the work done in deflecting it is equal to its volume multiplied by $\frac{1}{9} \cdot \frac{f^2}{2.E}$.

3. One shaft, carrying a stepped pulley and making 100 revolutions a minute, drives another shaft, 10 feet distant. Off the first step of the driving-shaft pulley, which is 20 inches diameter, the other shaft is driven at 200 revolutions a minute, and off another step of the same pulley, the speed of the driven shaft is 150 revolutions a minute. The belt being crossed, find the length of the belt and the sizes of the steps.

4. State clearly what is meant by the Entropy of Steam, and show in what manner the Temperature-Entropy Diagram may be used to trace the transfer of heat between the steam and the walls of the cylinder from point to point of the stroke.

5. Describe, and explain the action of, the Centrifugal Pump, and show how to obtain an expression for its efficiency.

State how you would proceed to design such a pump, having given the height of lift, and the quantity of water to be raised per minute.

NOTE.—*Answers should, as far as possible, be illustrated by sketches or diagrams.*

LABORATORY PRACTICE—(ELECTRICAL).

TUESDAY, 29*th March* 1898.—2 *to* 5 P.M.

1. Observations were made on a series dynamo as follows:—

Resistance of Armature, . . . ·32 ohm.
Resistance of Field Magnets, . . ·38 „
Speed, ... 700 revols. per min.

Current, amperes.	Total E.M.F. volts.
5·0	23
10·0	45
20·0	74
30·0	82
40·0	87
50·0	91
60·0	93
70·0	95

(*a*) Plot internal characteristic.

(*b*) Plot external characteristic and deduce maximum P.D. at terminals.

(*c*) Assign the critical resistance.

(*d*) Show general effect on characteristic due to an increase of speed to the extent of 100 revols. per min.

2. (*a*) Describe the application of the direct deflection method to the determination of the insulation resistance of a specimen of electric cable.

(*b*) Standard resistance 10^6 ohms; resistances of battery and galvanometer 200 and 5000 ohms respectively—to be taken account of or neglected at discretion. Deflection with standard resistance in circuit and 1/999 shunt, 160°; deflection with cable in circuit 100°. Calculate insulation resistance in round numbers of megohms per mile.

(*c*) If the external and internal diameters of the dielectric are respectively ·46 and ·35 inch, estimate the specific resistance.

3. Test of direct-coupled engine and dynamo. Engine:—William's double triple (single acting) cylinders (six in all) 5″, 7″, and 10″ dia. × 5″ stroke; dia. of piston rod 3″. Pressure in steam chest 145 lbs. gauge. Duration of test 23 minutes. Total revolutions 12,160. Total water through engine 266·6 lbs. Mean pressure reduced to low pressure cylinders 38·36 lbs. per square inch. Dynamo:—Brush compound. Mean current 211 amperes. Mean P.D at terminals 103·3 volts. Required:—

(*a*) Combined efficiency of engine and dynamo.

(*b*) Pounds of steam per I.H.P. per hour.

(*c*) Pounds of steam per E.H.P. per hour.

4. (*a*) Investigate and describe the method of measuring the power supplied to an alternating current apparatus by means of three suitable instruments used as ammeters.

(*b*) Point out the difficulties and express an opinion on the practical value of the method.

(*c*) In an application to a transformer on zero load the instruments read directly as follows:—

Joined in series with lead,	. . . .	0·8 ampere.
„ „	non-inductive resistance,	0·6 „
„ „	transformer primary, .	0·2 „

and the non-inductive resistance was 4000 ohms. Estimate HP absorbed by transformer.

5. (*a*) Describe in detail Hopkinson's method for the determination of the efficiency of a dynamo by help of another nearly similar and equal machine.

(*b*) Show that generally and rigorously, if e_1, e_2 are the efficiencies of the generator and motor respectively, J_1 the output of the dynamo, l the loss in leads and resistances, and x the mechanical power put into the combination, then

$$e_1 e_2 + \frac{x}{J_1 - l} e_1 = \frac{J_1}{J_1 - l}.$$

(*c*) In a certain experiment it was known that $e_2 = e_1$ very

nearly. Either assume this together with the preceding equation, or make the ordinary assumption and calculate the efficiency of the generator from the following data :—

P. D. at generator terminals, . . .	96·8 volts.
Current in external circuit, . . .	446·0 amperes.
Power in leads and adjustable resistances therein, ...	2·11 HP.
Power in motor magnets and adjustable resistance, ...	0·60 HP.
Mechanical power given to combination, .	11·80 HP.
Power absorbed in copper of generator armature, ...	2·77 HP.
Power absorbed in copper of motor armature, ...	2·65 HP.
Power in generator magnets, . . .	0·74 HP.

ENGINEERING.

WEDNESDAY, 30*th March* 1898.—9 *to* 11 A.M.

1. What are "Contours"? Describe the method of determining their positions on the ground, and state what useful purposes they may be made to serve.

2. Having a steel bar in the Testing Machine, explain how, with the aid of an extensometer, its elastic extensibility may be fully investigated, and how, from the data so obtained, the value of the Modulus of Elasticity E, may be deduced.

3. Give a short description of the construction and use of the two principal types of Steam Engine Condensers, and compare their respective advantages and disadvantages.

A ship's engine exhausts at a pressure of 9 lbs. absolute (temperature = 188° F.); the temperature of the feed is 120° F., and that of the discharge 100° F. What will be the respective

amounts of circulating water required per pound of steam, when the temperature of the sea is 65° F. and when it is 75° F. ?

4. What is meant by the instantaneous centre of an elementary piece of mechanism moving in one plane ?

Obtain the instantaneous centre of the piston-rod of an oscillating cylinder engine at any phase of the motion, and use it to determine the ratio of the angular velocities of the cylinder and the crank.

5. Define the co-efficients of resistance, contraction, velocity, and discharge, as employed in connection with the flow of liquids through orifices, and obtain two relations connecting these four co-efficients.

A circular jet of water, 12 inches in diameter, issues horizontally under a head of 500 feet. Calculate its Horse-Power, and also the pressure it would exert on a plane surface placed at right angles to the direction of its motion.

NOTE.—*Answers should, as far as possible, be illustrated by sketches or diagrams.*

DRAWING.

THURSDAY, 31*st March* 1898.—9 *to* 12 NOON.

Make a carefully finished drawing of *either* of the following :—

(*a*) An overhung crank of the design indicated in accompanying sketch. Determine the proportions that the shaft, key, and crank-arm may be equally strong.

Give the necessary views, and show how the crank-pin is attached to the arm.

The maximum pressure on the piston is 40,000 lbs., the stroke $4\frac{1}{2}$ feet, and the ratio of connecting rod to crank is 4.

Maximum stress per square inch, 5000 lbs. (Unwin's *Machine Design* allowed.)

(*b*) Cast-iron girder bridge, with wing-walls, as shown in accompanying sketch.

Draw elevation and plan: and design a girder of section indicated, and of *uniform strength* throughout. The flanges should not vary in breadth or thickness.

There is a uniform load of $\frac{2}{3}$ ton per foot run. The working stresses are :—

Tension, 2 tons per square inch.

Compression, $3\frac{1}{2}$ tons per square inch.

THURSDAY, 31*st March* 1898.—2 *to* 5 P.M.

I. PLANE GEOMETRY.

1. Make outline drawings of Watt's simple parallel motion, and of his extended motion. Find the points in each which describe approximately straight lines, and trace the path of each point.

The levers are $2\frac{3}{4}$ and $4\frac{1}{2}$ ft., and the connecting link $3\frac{1}{2}$ ft. long. The fixed centres are 8 ft. apart. Scale, $\frac{3}{4}'' = 1$ ft.

2. Construct the reciprocal figures for the cantilever given. There is a uniformly distributed load of 2 tons per foot run *and*, an anchor weight at A, such as will give, with the normal load, equal vertical reactions at B and C.

3. Determine graphically the moment of inertia of the given beam section about a horizontal axis through its centre of gravity.

4. Make a drawing of a rack and pinion in gear. The rack has pins instead of teeth. The diameter of the pitch circle of the pinion is 6″, and there are 20 teeth.

II. SOLID GEOMETRY.

5. Given the two lines AB, and AC, meeting in the point A. Find the real angle between them.

6. Given the plan and elevation of a vertical right cone, also the traces of an inclined plane; determine the plan, elevation and true form of the section of the cone made by the cutting plane. Also, draw the development of the curve of section on the conical surface.

DYNAMICS.

TUESDAY, 29*th March* 1898.—2 *to* 5 *o'clock.*

1. Prove that the path described by a particle under the influence of a central force varying inversely as the square of the distance is a conic section.

2. Calculate the moments of inertia of a hemispherical cap about the principal axes through the centre of mass, the internal and external radii being 12 and 15 inches, and the mass being 60 lbs.

Find the period of small oscillations of the cap rocking on a horizontal plane.

3. Investigate the form of catenary in which the weight is distributed uniformly along the horizontal line.

Express the greatest tension in terms of the weight (W), the span (a) and the sag (b) of a suspension bridge.

4. Show how to form the ellipse of stress, P and Q being given normal stresses on the principal planes.

If $P=-40$ and $Q=+60$, find the stress on the plane inclined 30° to the plane on which P is the normal stress.

5. Investigate the relation between the twist and twisting couple in a right cylindrical pillar.

Show that end couples cannot support a simple twist in pillars or bars whose section is not circular.

6. Discuss the kinematics of the crank and connecting rod of a locomotive engine, and find the loci in space and in the body of the instantaneous centre of rotation.

7. The acceleration of a body moving from rest is shown by a curve, the abscissa representing time and the ordinate the acceleration. Show how to find the velocity and the distance passed over at any time. As an example, suppose the acceleration for the first minute to be given by the two sides of an isosceles triangle whose base lies on the time-axis.

8. A regular pentagon $ABCDE$ is formed of smoothly hinged rods, and B and E are joined by a sixth rod. A is tied to the middle point of CD by a string whose tension is 3 lbs. weight. What is the stress in each rod?

9. A cannon ball is fixed with an initial speed of 500 feet per second at an object at the same level, 5000 feet distant. Determine the possible elevations (the resistance of the air being neglected), and find which is the more destructive if the object is (1) horizontal, (2) vertical, (3) if it slopes back at 45°.

10. In the discharge of a rifle the pressure due to the exploding powder remains constant till the bullet has traversed half the barrel, and then falls off according to Boyle's Law. The bullet weighs 2 ounces and the muzzle velocity is 2000 feet per second. Find the pressure at any time.

How is the question altered if beyond half-way the change of pressure and volume is adiabatic?

11. Explain Watt's diagram and define the efficiency of an engine. What would be the efficiency of an engine working between 40° C and 100° C, if there were no friction or leakage of heat? Explain the absolute scale of temperature, how it is settled, and how it differs from the mercurial scale.

12. Show how to calculate the moment of momentum of a rigid body about an axis.

A bicycle is turned upside down and rests on the handles and saddle, and the pedals and driving wheel are put in rotation. Explain why the bicycle rocks, and show how to find the angle through which it rocks.

GEOLOGY.

TUESDAY, 20*th July* 1897.—1 *to* 3 *o'clock.*

1. Describe the process of weathering. Give as illustrations the weathering of Basalt, Quartzite, and Limestone.

2. How is soil formed?

3. A series of strata dips continuously in one direction at an angle of 15° for a distance of 1200 feet. What is the true thickness of the series?

4. Draw a *ground-plan* of anticlines and synclines traversed by a fault running across the strike, and show how the outcrops are affected. Insert arrows to show the direction of dip of the strata; and indicate the downthrow side of the fault.

5. Describe the mode of origin of caverns in Limestone.

Public Health.

MEDICINE.

MONDAY, 21*st March* 1898.—10 *to* 12 *o'clock.*

Only TWO *questions to be answered.*

1. State briefly the current views regarding the various ways in which Typhoid Fever may spread in a community. What are the microscopic characters of the Typhoid bacillus? Describe the Widal test for Typhoid Fever.

2. What are the occupations which chiefly expose workmen to chronic Lead Poisoning? Describe the symptoms of that condition, and the treatment of it, preventive and curative.

3. What are the conditions which favour the appearance and propagation of Erysipelas? What micro-organism is it due to? Describe its symptoms, course, and morbid anatomy.

SANITARY LAW.

MONDAY, 21*st March* 1898.—1 *to* 3 *o'clock.*

I.—*Substitution of Water-closets for Midden Privies which have been in use for many years in a large town.*

The Council of an English provincial town have decided to abolish midden privies in their district, and have passed a resolution to substitute water-closets for privies. An owner of property where the midden privies are causing nuisance is served with an order to substitute waste water-closets in place of the privies. Discuss the legal powers of the Council to effect their object; and state your opinion as to the legality of the Council's action and their powers to enforce the order they have served upon the property owner.

II.—*Powers of County Councils and Parish Councils.*

What powers in respect of sanitary matters are possessed by County Councils and by Parish Councils in England and Wales, and by what statutes are the powers in question conferred?

III.—*Bye-Laws.*

A District Council are desirous of adopting bye-laws under sec. 157 of the Public Health Act, 1875, as to new streets and buildings. State generally the object of framing such bye-laws; and mention the chief points that would require to be considered in their preparation.

VITAL STATISTICS.

MONDAY, 21*st March* 1898.—4 *to* 6 *o'clock.*

I. It is alleged by the anti-vaccinationists that the decrease which has taken place in small-pox mortality since the introduction of vaccination is not due to vaccination but to sanitary

measures. Criticise this position by reference to the behaviour of mortality from

(1) Small-pox,
(2) Enteric Fever,
(3) Typhus,
(4) Measles,
(5) Whooping Cough,
(6) Infantile Diarrhoea,

and quote any statistics you know bearing upon the subject.

II. What are the several sources of fallacy in recorded death-rates?

III. Discuss the effect of Illegitimacy on the Infantile Mortality.

SANITATION.

TUESDAY, 22*nd March* 1898.—10 *to* 12 *o'clock.*

I. ISOLATION HOSPITAL.

A town of 100,000 inhabitants is about to provide isolation accommodation for infectious disease; discuss in detail the following points upon which your advice is asked.

(*a*) What diseases you would make provision for.
(*b*) The site or sites required.
(*c*) The arrangement of hospital buildings on site.
(*d*) The internal arrangements of the buildings:—
  (1) for the sick.
  (2) for the administration.
(*e*) The outbuildings necessary for complete equipment of an isolation hospital.

II. DUTY OF A PORT MEDICAL OFFICER OF HEALTH.

In the event of your being Medical Officer of Health to a properly equipped Port in England or Wales, what would be

your action if a vessel arrived in your district from abroad with—

(*a*) Cases of Cholera or Bubonic Plague on board.

(*b*) Cases of Enteric Fever on board.

Contrast your action with what it would have been when quarantine was in force in this country.

III. ANNUAL HEALTH REPORT.

Sketch out, for a Medical Officer of Health's Annual Report upon a large Urban district, the headings and sub-headings under which you would discuss the considerations that would have to be dealt with in the report.

PRACTICAL SANITATION, MENSURATION, AND DRAWING.

TUESDAY, 22*nd March* 1898.—1 *to* 4 P.M.

FOUR *questions only are to be attempted, of which No.* 5 *must be one.*

1. Supposing a Catchment Basin to have been decided upon as the source of a town's water-supply :—

(*a*) Explain fully how its probable yield may be ascertained.

(*b*) Describe the character and uses of the various structural works that may be needful in order to render the supply available.

2. To what tests would you subject ordinary earthenware drain-pipes, so as to satisfy yourself as regards their quality ? Mention any special points you would insist upon, in connection with their being laid in the ground.

3. Discuss the means generally necessary in order to ensure the perfect ventilation of house drains and the soil-pipe, when at least two closets, at different elevations, discharge into the latter.

4. Describe the methods most commonly employed for the final disposal of town's sewage. Compare their respective merits in relation to any special conditions of application.

5. From the dimensioned sketch supplied (A Wall-pocket for Double-flooring) make the drawings indicated.

N.B.—*In order to receive full credit, answers must be freely illustrated by sketches or diagrams.*

Agriculture.

AGRICULTURE.

WEDNESDAY, 23*rd March* 1898.—9 *to* 12 *o'clock.*

1. A 250-acre arable farm is worked on a 5-course shift. Ten acres of the fallow break are under potatoes, the remainder under roots. Cattle and sheep are fattened during winter. Make estimates showing:—

(1) The total of the labour bill for the barley crop and the potato crop.

(2) The quantity of turnips, straw, and hay available for the fattening stock after providing for the horses and cows required to supply labour and dairy produce to the farm.

(3) The numbers of cattle and sheep and their values when put on winter keep.

(4) The quantity of rotted dung available each year.

(5) The artificial manures and food-stuffs that would be purchased, their several prices, and the price per unit of the nitrogen in the nitrogenous fertilisers.

2. On what classes of soils are potash manures usually required? Name the three common potash fertilisers, quote current prices, and give the percentages of potash you would expect in each.

What injurious effects are sometimes to be attributed to the use of salts of potash?

3. Why are narrow ridges much less common now than they formerly were?

I wish to plough two lea fields *A* and *B*, the first into 20, the second into 80-feet ridges. The head ridges of *B* are 20 feet wide, and are to be ploughed "round about," with portions of the ridges next the side fences. Show by a section across the ridges the position of the first and second feerings and open furrows, mark the distances from the fence on your sketch, and explain how the horses turn at the ends of the furrows.

Do you approve of using a high-cutting plough in preparing lea for oats? Give reasons for your opinion.

4. Explain the terms "Inherent Fertility" and "Cumulative Fertility."

Describe, as fully as you can, the different ways in which a soil may gain in fertility.

5. Between what limits does the seed-rate for wheat fluctuate in British farm practice?

Name the conditions that favour thinly-sown and thickly-sown wheat respectively.

What would be the probable effects of thin-seeding rich clean land with wheat if the winter were unusually open and the spring late and wet?

What seed-rates would you recommend for good land in the Lothians at the following seasons:—October 1st, November 15th, February 15th?

6. For what classes of soils are Alopecurus pratensis, Phleum pratense, and Poa pratensis respectively unsuitable as part of a mixture of grass seeds for a permanent pasture?

What is your opinion of the value of each of the above for a seeds' mixture for two years' grass on good warm soil?

7. Describe the special points, and briefly recount the history of the Border Leicester breed of sheep.

What are the chief differences between this breed and Lincoln sheep?

Would you prefer the Border Leicester or the Shropshire for crossing black-faced ewes? Give the reasons for your opinion.

8. Discuss the following subjects, stating the advantages of and the objections to the practices referred to—

(1) The pulping of turnips for (*a*) Store, and (*b*) Fattening Cattle.

(2) The cooking of food for (*a*) Store Cattle, and (*b*) Milking Cows.

AGRICULTURAL CHEMISTRY.

WEDNESDAY, 23*rd March* 1898.—1 *to* 3 *o'clock.*

1. Distinguish between Putrefaction and Decay of organic matter, and describe the circumstances favourable to each of these processes.

2. Albuminoid matter in the soil is ultimately converted into Albumen in the plant. Describe the cycle of changes it has to undergo, and explain the circumstances which favour the production of each of the intermediate compounds.

3. How are Starch Dextrine, Maltose and Dextrose related to each other? What tests would you employ to distinguish them?

4. Explain the formation of Cloud and of Dew. Describe an apparatus for determining the amount of moisture in the atmosphere.

5. Describe the changes which take place in barley during the process of malting.

6. What tests would you employ to determine the genuineness of a sample of milk?

(NOTE.—*The Practical Examination will be taken on Friday, 25th curt., in the Agricultural Chemistry Laboratory, at* 10 A.M., *and the Oral Examination thereafter on the same day.*)

GEOLOGY.

The paper is the same as for Geology in Engineering.

VETERINARY HYGIENE.

MONDAY, 21*st March* 1898.—1 *to* 3 *o'clock.*

1. What is the thorax? Name the bones which enter into its formation, and state how you would distinguish the thorax of the horse from that of the ox.

2. What do you understand by the term "Dentition"? Describe the appearance of the mouth (so far as the incisors are concerned) of the horse and ox at three years old.

3. What do you understand by the term "Gestation"? What is the period in the mare, cow, and ewe, and state what disease incidental to parturition you consider is the most dangerous, its causes and treatment, and the measures you would adopt to prevent its spread.

4. What are the chief differences between the stomach of the horse and those of the ox. Describe briefly, in their order and under their proper designation, the stomachs of the ox, and state what diseases are incidental to the first stomach, their causes and treatment.

5. What is Lymphangitis? State in what animal it occurs, its causes, symptoms, and the treatment you would adopt for the cure of a first and the prevention of a subsequent attack.

AGRICULTURAL ENTOMOLOGY.

THURSDAY, 31*st March* 1898.—9 *to* 11 *o'clock.*

1. Define an insect; that, is state the chief characteristics of structure, and also of life-history, common to the Class Insecta, by which true insects are distinguishable from other agricultural

pests, such as Acari, Millepedes, etc., often known as "Insect Allies."

2. Describe the typical characteristics in larval, and also in pupal state, of the Coleoptera, Lepidoptera, Diptera, Hymenoptera, and Orthoptera, and mention shortly what are the chief variations from the ordinary form of larva in each order.

3. Name the different kinds of infestations to which wheat is subject; enumerating attacks to the young plant; also to the inside, and to the outside of the stalk; to the flower or young grain; and to the grain in the ear. Give a short history of one kind of attack, with the most serviceable method of prevention.

4. Describe the ordinary life-history of the common Aphides, or Plant Lice; and name the circumstances of weather, or condition of plants, favourable to rapid Aphis increase. Also mention the chief insect foes of these pests; and the principal ingredient in the most serviceable spraying applications, or washes.

5. Describe as briefly as possible the different methods of attack, or of setting up infestation, of Ox Gadfly, and of Ox Warble-fly; also of Horse Bot-fly and of Horse Forest-fly, with a few words of the nature of the measures commonly used to prevent each kind of attack. (Life-histories not required.)

ECONOMIC SCIENCE.

Same as the First Paper for M.A.

FORESTRY.

THURSDAY, 31*st March* 1898.—11.30 *to* 1.30.

Candidates have the alternative of answering questions 2 *or* 5.

1. Describe in detail the more important methods of planting, and indicate the conditions appropriate to each. How many

trees would you expect a competent workman to plant daily under the various systems?

2. Explain what is meant by planting in squares and in triangles. Assuming that you wish to distribute 4000 plants equally over an acre under each of the two systems, what would be the dimensions of the intervals between the plants in each case?

3. The following are given as examples of mixtures:—Beech and Oak, Spruce and Larch, Ash and Hornbeam, Silver Fir and Poplar. Discuss the suitability or otherwise of these mixtures, point out the conditions for which they are suitable, indicate the relative height-growth of the various species at the end of 20 years, and show how you would propose to treat the woods until the stage of maturity was reached.

4. Describe the method commonly adopted when sowing seeds of conifers in a nursery. By what previous treatment may the germination of the seed be hastened without risk of damage to it? By what previous treatment may it be secured against attack by birds and mice? How much Scots Fir seed of average quality would be required for 100 square feet of bed? At what season is the seed usually sown?

5. Name some species of trees which would be suitable for planting in a high, exposed locality. What description of plants of these species would you use?

6. Describe the "Quarter-girth" system of measuring round logs. Give an example. How does the result compare with the true contents of a symmetrically-shaped log of moderate taper?

ENGINEERING FIELD WORK.

TUESDAY, 29*th March* 1898.—3 *to* 5 P.M.

1. Describe the Vernier and its uses. How may a Vernier be constructed so as to read to 15 seconds of arc?

2. How would you set about making a survey of a small farm consisting of six or seven fields and a homestead, supposing you had no angular instrument available?

3. If, in chaining a line, you met with an obstacle that you could only see across, how would you deal with it so as to complete the line?

4. Describe the Box Sextant and the ordinary Theodolite, and state in what essentials, both as regards principles of construction and applications, the one instrument differs from the other.

5. Show, by means of an example, how in a closed survey made with the circumferenter, the lengths of two of the lines, if omitted on the ground, can be subsequently found.

6. What do you know about Bidder's Tables and their use?

7. Give an example, involving not less than five movements of the instrument of the manner in which a level-book is kept, and the entries reduced and balanced, so as to be available for plotting the Section.

8. Show how to set out a curve of 8 chains radius, without the aid of an angular instrument.

NOTE—*Answers should, as far as possible, be illustrated by sketches or diagrams.*

ENGINEERING.

WEDNESDAY, 30*th March* 1898.—9 A.M. *to* 12 NOON.

1. Enunciate the proposition known as the Triangle of Forces. Three forces, F, $\sqrt{3}F$, and $2F$, act on a solid particle and keep it at rest. What are the angles between their respective directions?

2. What is "Work," and how is it measured?

Suppose you have a smooth plane, 50 feet long, placed at an angle of 30° to the horizon. What difference will there be in

the amount of work done in pulling a smooth block of material, weighing a ton, up the plane, and in hoisting the same block vertically a height equal to the height of the plane ?

3. Define the Moment of a Couple, and show that two couples acting in the same plane are of equal effect, if their moments are equal and of the same sign.

A capstan has eight equal bars. At what distance from the centre must five men be placed so as to neutralise the effort of three others, placed at the bar ends, to turn it in an opposite direction : all the men being of equal strength ?

4. State the mechanical conditions under which a uniform solid will float in a liquid.

What is the character of the equilibrium of a uniform sphere floating in water ? Give reasons for your answer.

5. In what respects does wrought-iron differ from steel ?

Describe the process of testing a specimen of mild-steel so as to find the tensile-strength, the yield-point, and the extension at each stage of the loading after the yield-point is reached. Draw such a curve of extension and load as you would expect to have in the case in point.

6. Compare Poncelet's Wheel with the Turbine.

State how Turbines are usually classified in connection with their principles of action, and discuss the advantages and disadvantages of each type of machine.

7. Under what circumstances is the use of toothed gearing necessary in machinery ?

State what conditions should determine the pitch, length, and shape of the teeth employed in any case.

8. Certain errors are found in steam-engine indicator diagrams, both in respect of the figure and the breadth of the diagram. State the causes from which these arise, and give sketches showing the effect of each cause upon the form of the diagram.

9. Describe the action of one form of oil-engine; sketch the form of its indicator diagram, and point out to what causes the loss of heat is mainly due.

NOTE.—*Answers should, as far as possible, be illustrated by sketches or diagrams.*

Papers for Degree of B.D.

DEPARTMENT I.

HEBREW.

TUESDAY, 29*th March* 1898.—10 *to* 1 *o'clock.*

A.

I. TRANSLATION AND CRITICAL NOTES.

1. Translate:—

1, 2 לִבְנֵי־קֹרַח מִזְמוֹר שִׁיר יְסוּדָתוֹ בְּהַרְרֵי־קֹדֶשׁ: אֹהֵב יְהוָה שַׁעֲרֵי צִיּוֹן

3, 4 מִכֹּל מִשְׁכְּנוֹת יַעֲקֹב: נִכְבָּדוֹת מְדֻבָּר בָּךְ עִיר הָאֱלֹהִים סֶלָה: אַזְכִּיר רַהַב

5 וּבָבֶל לְיֹדְעָי הִנֵּה פְלֶשֶׁת וְצוֹר עִם־כּוּשׁ זֶה יֻלַּד־שָׁם: וּלְצִיּוֹן יֵאָמַר אִישׁ וְאִישׁ

6 יֻלַּד־בָּהּ וְהוּא יְכוֹנְנֶהָ עֶלְיוֹן: יְהוָה יִסְפֹּר בִּכְתוֹב עַמִּים זֶה יֻלַּד־שָׁם סֶלָה:

7 וְשָׁרִים כְּחֹלְלִים כָּל־מַעְיָנַי בָּךְ:

2. (*a*) Write a critical note on verses 6 and 7, with special reference to the LXX. *κύριος διηγήσεται ἐν γραφῇ λαῶν καὶ ἀρχόντων τούτων τῶν γεγενημένων ἐν αὐτῇ· διάψαλμα. ὡς εὐφραινομένων πάντων ἡ κατοικία ἐν σοί.*

What alteration does Hupfeld suggest? and how does Hofmann, keeping the text as it stands, understand the passage?

(*b*) Estimate the date of the psalm by reference to its contents.

(*c*) Write grammatical and syntactical notes on—

יסודתי, verse 1; נכבדות מדבר בך, verse 3; איש ואיש, verse 5: also exegetical notes on the latter clause of verse 1, and on רהב, verse 4.

II. Jewish History.

1. Give a general account of the course of events in the history of Jerusalem during the first half of the Seventh Century B.C., *i.e.* up to about 650.

2. Describe the fall of Samaria and estimate its date.

3. Write a note in explanation of Sayce's words: "Ten years before the campaign of Sennacherib Jerusalem had felt the presence of an Assyrian army. . . . It is remarkable, nevertheless, that so important an event should be unrecorded in the Book of Kings."

4. What was the general position of Hebrew prophecy in the reign of Josiah?

III. Hebrew Version.

1. My father-in-law had intended to build a new house in the country not far from our home; but being doubtful whether the water springs of that portion of the land were good, he sent an expert [man of knowledge] to make enquiries. On his return this man reported as follows:—"Some of the water comes from the rock and is of excellent quality: but not all: for I took a pot of water from one spring and laid it up till next morning: and it became too bitter to drink: but it might be good enough for washing clothes." My father-in-law was pleased with this report, and he brought his wife and his servants and his cattle and lived near us for twelve years.

2. (She) seized the holy Book
Suddenly set it wide to find a sign, פִּתְאֹם
Suddenly put her finger on the text
"Under the palm tree:" That was nothing to her;
No meaning there: she closed the Book and slept:
When lo! her Enoch sitting on a height
Under a palm tree: over him the sun:

"He is gone," she thought, "he is happy, he is singing
'Hosanna in the highest!' yonder shines
The Sun of Righteousness, and these be palms,
Whereof the happy people *strowing* cried, יצע *Hip*
'Hosanna in the highest!'"

TENNYSON.

B.

I. (*a*) Point the following passages:—

1 (1) ויאמר משה אל־יהוה בי אדני לא איש דברים
2 אנכי כי כבד־פה וכבד לשון אנכי: ויאמר יהוה אליו מי
שם פה לאדם או מי־יָשׂוּם אלם או חרש או פקח או עור
3 הלא אנכי יהוה: ועתה לֵךְ ואנכי אהיה עם־פיך והוריתיך
4 אשר תדבר: ויאמר בי אדנָי שלח־נא ביד־תשלח:

1 (2) ומשה עלה אל־האלהים ויקרא אליו יהוה מן־ההר
2 לאמר כה תאמר לבית יעקב ותגיד לבני ישראל: אתם
ראיתם אשר עשיתי למצרים ואשא אתכם על־כנפי
3 נשרים וָאָבֵא אתכם אלי: ועתה אם־שמוע תשמעו בקלי
ושמרתם את־בריתי והייתם לי סְגֻלָּה מכל־העמים כי־לי
4 כל־הארץ: ואתם תהיו־לי ממלכת כהנים וגוי קדוש
אלה הדברים אשר תדבר אל־בני ישראל:

(*b*) Translate the second of the above extracts.

(*c*) In extract *a* (1) explain the repetition of כבד in 1 *b* and the formation of the adjectives in verse 2; parse והוריתיך (3) and give two nouns from this stem; give the syntax of 4 *b*.

(*d*) What is the nature of the evidence that the narrative of the plagues as given in Exodus vii.-xi. is not a homogeneous narrative from a single pen?

Or, discuss Dillmann's characterisation of extract *a* (2) above as "the classical expression in the Old Testament regarding the nature and purpose of the theocratic covenant."

II. (*a*) Translate :—

וְאָשׁוּב וְאֶשָּׂא עֵינַי וְאֶרְאֶה וְהִנֵּה מְנֹרָה עֶפֶה׃ וַיֹּאמֶר אֵלַי מָה אַתָּה רֹאֶה׃ 1, 2
וָאֹמַר אֲנִי רֹאֶה מְנֹרָה עֶפֶה אֻרְכָּהּ עֶשְׂרִים בְּאַמָּה וְרָחְבָּהּ עֶשֶׂר בְּאַמָּה׃
וַיֹּאמֶר אֵלַי זֹאת הָאָלָה הַיּוֹצֵאת עַל־פְּנֵי כָל־הָאָרֶץ כִּי כָל־הַגֹּנֵב מִזֶּה כָּמוֹהָ 3
נָקָה וְכָל־הַנִּשְׁבָּע מִזֶּה כָּמוֹהָ נָקָה׃ הוֹצֵאתִיהָ נְאֻם יְהוָה צְבָאוֹת וּבָאָה 4
אֶל־בֵּית הַגַּנָּב וְאֶל־בֵּית הַנִּשְׁבָּע בִּשְׁמִי לַשָּׁקֶר וְלָנָה בְּתוֹךְ בֵּיתוֹ וְכִלָּתוּ וְאֶת־
עֵצָיו וְאֶת־אֲבָנָיו׃

(*b*) Parse fully עפה (1), היוצאת (3), ולנה and כלתי (4). Remark on the preposition in באמה (2) and on the difficulties connected with מזה כמוה and נקה (3).

(*c*) Write a short note on the significance of this vision.

III. (*a*) Translate :—

וְאֶרְעֶה אֶת־צֹאן הַהֲרֵגָה לָכֵן עֲנִיֵּי הַצֹּאן וָאֶקַּח־לִי שְׁנֵי מַקְלוֹת לְאֶחָד 1
קָרָאתִי נֹעַם וְלָאֶחָד קָרָאתִי חֹבְלִים וָאֶרְעָה אֶת־הַצֹּאן׃ וָאַכְחִד אֶת־שְׁלֹשֶׁת 2
הָרֹעִים בְּיֶרַח אֶחָד וַתִּקְצַר נַפְשִׁי בָּהֶם וְגַם־נַפְשָׁם בָּחֲלָה בִי׃ וָאֹמַר לֹא 3
אֶרְעֶה אֶתְכֶם הַמֵּתָה תָּמוּת וְהַנִּכְחֶדֶת תִּכָּחֵד וְהַנִּשְׁאָרוֹת תֹּאכַלְנָה אִשָּׁה
אֶרְעֶה אֶתְכֶם הַמֵּתָה תָּמוּת וְהַנִּכְחֶדֶת תִּכָּחֵד וְהַנִּשְׁאָרוֹת תֹּאכַלְנָה אִשָּׁה 4
אֶת־בְּשַׂר רֵעוּתָהּ׃ וָאֶקַּח אֶת־מַקְלִי אֶת־נֹעַם וָאֲנַתֵּעַ אֹתוֹ לְהָפֵיר אֶת־בְּרִיתִי
אֲשֶׁר כָּרַתִּי אֶת־כָּל־הָעַמִּים׃ וַתֻּפַר בַּיּוֹם הַהוּא וַיֵּדְעוּ כֵן עֲנִיֵּי הַצֹּאן הַשֹּׁמְרִים 5
אֹתִי כִּי דְבַר־יְהוָה הוּא׃

(*b*) What emendations are suggested in verses 1 and 5 by the LXX. τὰ πρόβατα τῆς σφαγῆς εἰς τὴν Χαναανίτιν· and γνώσονται οἱ Χαναναῖοι τὰ πρόβατα κ.τ.λ.? How, on the supposition that Zech. ix.-xi. is an early pre-exilic prophecy, would you explain verse 2*a*?

IV. חֶרֶב עוּרִי עַל־רֹעִי וְעַל־גֶּבֶר עֲמִיתִי נְאֻם יְהוָה צְבָאוֹת הַךְ
אֶת־הָרֹעֶה וּתְפוּצֶיןָ הַצֹּאן וְהֵשִׁבֹתִי יָדִי עַל־הַצְּעָרִים׃

Write a critical and exegetical note on this passage, especially in the light of its proper context and N. T. quotation.

V. Give a short sketch of the history of critical opinion regarding the canonical book of Zechariah;

Or, indicate some of the difficulties in the way of a satisfactory determination of the date of Zechariah, Chaps ix.-xi.

APOLOGETIC THEOLOGY.

TUESDAY, 29*th March* 1898.—2 *to* 5 *o'clock.*

MATERIALISM AND POSITIVISM.

1. State and examine generally the claims of Modern Materialism as (*a*) a monistic philosophy, and (*b*) a scientific explanation of the universe.

2. Remark on the ethical and religious aspects of ancient and modern forms of Materialism.

3. Show how the spirit, method, and principles of Comte's teaching have affected English thinkers, and consider the positions taken up by them.

4. Explain the principles on which it has been attempted to base religion on positivism, and indicate whether or not such attempts have been successful.

THE PREPARATION IN HISTORY FOR CHRISTIANITY.

1. Estimate the importance of (*a*) the Babylonian Captivity,

(*b*) the Synagogue teaching, and (*c*) the Jewish Dispersion, as preparations in history for Christianity.

2. State carefully the apologetic arguments by which St. Paul and the Author of the Epistle to the Hebrews show that the Law of Moses was a preparation for Christianity and was destined to be superseded by it. How far are the arguments capable of being applied to ethnic religions?

3. Comment on the statement, "Christianity was a highly spiritual reform of Judaism, coloured with Hellenic thoughts by the New Testament writers under the influence of the age, and therefore successful within the sphere of the Graeco-Roman civilisation. Outside of this, when brought into contact with the religions of highly advanced nations, where 'preparation' might have been expected to be most operative, it has been a failure. The idea of there being a divine preparation for it is discredited, moreover, by the counter triumphs of Mohammedanism, and by the fact that, as a development of and an advance upon the best religious thoughts of the past, Christianity is not unique in the history of religions."

4. How far had Christ's doctrine of the Kingdom of God been anticipated by (1) Graeco-Roman philosophers, and (2) Hebrew prophets?

The Life and Work of Christ in Relation to Apologetics.

1. What was Christ's idea of the Kingdom of God? Advert to the views of Ritschl. How would you show apologetically that the means employed by Christ were most congruent to His end?

2. State the argument for Christianity which is founded on a comparison of Christ with other great teachers.

3. Estimate the importance for Apologetics of the revelation which Christ gave of God by His character and His life.

4. Examine the statements in the Gospels in which Christ declares His own greatness, and consider whether such declarations are compatible with the humility and perfect moral worth ascribed to Him.

DEPARTMENT II.

ECCLESIASTICAL HISTORY.

WEDNESDAY, 30*th March* 1898.—10 *to* 1 *o'clock.*

1. Give a brief account of (*α*) Gregory Thaumaturgus, (*β*) Paul of Samosata, (*γ*) Mensurius of Carthage.

2. Estimate the personal character of Constantine the Great, illustrating the various features so far as possible by reference to incidents in his career.

3. Narrate the cause and trace the course of the Meletian Schism.

4. Write a description of Montanism.

5. Contribute a sketch of the practice of the observance of Sabbath and of Sunday up to and including the fourth century.

6. State the significance of the Councils of Sirmium in the Arian controversy.

7. Summarise the views of leading churchmen as to infant baptism at various periods prior to the middle of the fifth century.

8. Discuss the history of the term *Vicarius Petri*, and, having noted the views of Cyprian on the position of the Roman See, point out how these were subsequently developed within the period prescribed for examination.

9. Show how the churches came to be used as asylums, and indicate how far the intercessory efforts of the Bishops had an influence. Can you mention any actual cases occurring under either head?

10. State Marcion's conclusions as to (*α*) Biblical Criticism, (*β*) Public Worship, and (*γ*) Christology.

11. Sketch the lives of Alexander Leighton and Alexander Peden.

12. Write notes on (α) the Test Act, (β) the Rescissory Act, (γ) the Assertory Act.

13. "On the 25th April the Parliament met which was to give us the Establishment which we still enjoy."—(*Cunningham.*) Give the year: and outline the leading Ecclesiastical Acts passed by this Parliament.

14. Give some information as to the following:—(α) "The Book of Canons," (β) "Aaron's Rod Blossoming," (γ) "The Causes of God's Wrath," (δ) "Lex Rex."

15. Indicate the contents of the Directory of Public Worship, and narrate the history of its production, and of its reception in Scotland.

SYSTEMATIC THEOLOGY.

WEDNESDAY, *30th March* 1898.—2 *to* 5 *o'clock.*

THE SOURCES OF CHRISTIAN DOCTRINE, AND THE PLACE, FUNCTIONS, METHOD, AND HISTORY OF CHRISTIAN DOGMATICS.

1. Examine the teaching of the Westminster Confession as to the authority of Holy Scripture. By what criterion is the difference in normative value of different books of Scripture as sources of doctrine to be determined? Apply it to the books of the New Testament.

2. What are the starting-point and the legitimate sphere of dogmatic investigation? Describe the nature, methods, and limitations of dogmatic proof.

3. Characterise in a general way:—Federal Theology, Theology of Saumur, Rationalism, Speculative Dogmatics, and Ritschlianism.

4. Give a short historical view of the controversies which led

to the formation of the Doctrine of the Personal Union of the Divine and Human Natures in the Incarnate Son of God.

The Doctrines of the Trinity and Incarnation.

1. Summarise the Scripture teaching regarding the Personality of the Holy Spirit and His relation to the Father and the Son. Briefly indicate the development of Church doctrine on the subject.

2. What points were decided by the Early Councils of the Church (1) as against Sabellianism, (2) as against Arianism and Semi-Arianism, and (3) as to the nature of the subordination of the Son and Holy Spirit to the Father? Explain the more important terms employed.

3. Comment on the statement:—"The Synoptical Gospels use 'Son of God' as a Messianic title of honour (as in Psalm II. and Daniel); St. Paul in his undoubted epistles means by it a pre-existing Being in God's image, the Heavenly or Spiritual Man, the Ideal of a New Humanity who took flesh (not humanity) when born of a woman; only later writers, strongly influenced by Hellenic thought, teach the Incarnation."

4. "Christ has for the Christian consciousness the religious value of God. All that we really mean by the word 'God' is to be seen in His human life. To attempt metaphysical explanations is a complete mistake." Identify and criticise this view.

The Doctrine of the Atonement.

1. Describe the views of the Atonement held by Roman Catholic and Lutheran theologians.

2. Review this explanation, "Jesus suffered through seeing sin and sinners with God's eyes, and feeling in reference to them with God's heart. By what He suffered, He condemned sin and revealed the wrath of God against it. His holiness and love

taking the form of suffering, compose the very essence and adequacy of His sacrifice for sin."

3. Distinguish between the sufficiency and the efficiency of the Atonement. Show by historical references the bearing of the doctrine of election on the views held as to the extent of the Atonement.

4. State, as comprehensively as you can, in what respects the sacrifice of Christ was related to ancient sacrifices.

BIBLICAL CRITICISM.

THURSDAY, 31*st March* 1898.—10 *to* 1 *o'clock.*

I.—MANUSCRIPTS, VERSIONS, AND DISPUTED PASSAGES.

1. LUKE xxii. 43, 44.—ὤφθη δὲ αὐτῷ ἄγγελος ἀπ' οὐρανοῦ ἐνισχύων αὐτόν. καὶ γενόμενος ἐν ἀγωνίᾳ ἐκτενέστερον προσηύχετο. ἐγένετο δὲ ὁ ἱδρὼς αὐτοῦ ὡσεὶ θρόμβοι αἵματος καταβαίνοντες ἐπὶ τὴν γῆν.

Discuss the authenticity of this passage, specifying as precisely as you can the external evidence.

2. Describe the Syriac Versions. Specially compare the two most important, as to their probable date and their relative value.

3. Give some account of {F. G. H. M.} PAUL.

4. LUKE viii. 32.—ἦν δὲ ἐκεῖ ἀγέλη χοίρων ἱκανῶν βοσκομένων ἐν τῷ ὄρει· καὶ παρεκάλεσαν αὐτὸν ἵνα ἐπιτρέψῃ αὐτοῖς εἰς ἐκείνους εἰσελθεῖν. καὶ ἐπέτρεψεν αὐτοῖς.

παρεκαλεσαν supported by || Mk. B.C[1]LΞ𝔎[3a]1.33 lat—*a b c f ff*$_2$ *l q* goth.

παρεκαλουν supported by || Mat. A.C[3].D.P.R.𝔎.69. vulg lat—$g_{1.2}$ syrr copt.

State the meaning of these symbols. Describe in some detail the uncial authorities which support the text. Which do you reckon the likelier reading, and why?

II.—Canonicity.

Note.—2 *and* 3 *are alternatives.*

1. Relate what is known of Papias, and of his testimony to the Gospel of St. Matthew.

2. State the probable period of the so-called Clementine Homilies, and compare the use made by them of the gospels of St. Matthew and St. Luke respectively. What inference may be drawn from such a comparison?

Or, **3.** Write a short account of the Muratorian Canon, noting its history, estimating its value, and more particularly indicating its evidence in regard to the Petrine and Pauline Epistles.

4. Give a brief outline of the Paschal Controversy, in so far as it affects the date of St. John's Gospel, and state the nature and value of the part taken by Polycrates in that dispute.

5. Examine the testimony of (α) The Peschito, and (β) of Origen as to the genuineness, or the reverse, of 2 Peter. What are the chief internal grounds on which that Epistle has been pronounced spurious?

III.—Introduction to the Petrine and Pauline Epistles.

1. What evidence can be adduced for the existence of other letters of St. Paul than we now possess?

2. What grounds are there for the opinion that the title of the Epistle to the Ephesians is a misnomer? Explain how the error, if such it be, is supposed to have arisen.

3. Weizsäcker holds that the general representation of events given by the author of Acts, contradicts throughout the view afforded by 1 Corinthians. Godet, on the other hand, maintains that, when the difference between history and biography is reckoned, it is impossible to conceive a more complete

harmony than our two sources of information supply. Discuss the question.

4. Compare the eschatology in the two Epistles to the Thessalonians.

IV.—Introduction to the Old Testament.

Note.—3 *and* 4 *are alternatives.*

1. What is the present position of criticism with respect to these books, viz: (α) Ecclesiastes, (β) Song of Solomon, (γ) Daniel?

2. *Either*, Estimate the date of the book of Habakkuk: and comment on this passage from its latest commentator: "The third chapter, an Ode or Rhapsody, is ascribed to Habakkuk by its title. This however does not prove its authenticity; the title is too like those assigned to the Psalms in the period of the Second Temple . . . Nor do the contents support the authorship by Habakkuk."

Or, 3. Discuss the age, purpose, and contents of the book of Joel.

4. Discuss the connection between Isaiah and Micah; and give a brief abstract of the book of the Prophecies of the latter.

V.—Robertson's "Early Religion of Israel."

Note.—3 *and* 4 *are alternatives.*

1. Tell briefly what you know regarding the Tel-el-Amarna tablets, and their bearing on present-day controversies.

2. State the chief incidents recorded in the Old Testament on which there is based the assertion that human sacrifice to Jehovah was an original custom in Israel, and that therefore the God of Israel was either Moloch or a deity of similar character.

Examine particularly any one of these incidents.

3. In what sense, and with what amount of truth, does Wellhausen allege that Ezekiel XL-XLVIII., containing measurements of the temple and divisions of the land, is the key of the

Old Testament? Show how the admitted existence of Deuteronomy before Ezekiel's day bears on the questions raised.

Or, 4. Develope the argument embodied in the following passage:—"If such a definite thing as a covenant stands at the threshold of the national history, then to deny to Moses the organisation of Israel on the basis of definite observances, not only of a moral, but also of a ceremonial character, leaves the unvarying tradition of later time without any adequate explanation or support."

Papers for Degrees in Law (LL.B. and B.L.)

SCOTS LAW.

MONDAY, 14*th March* 1898.—9 *to* 1 *o'clock.*

I.

1. Describe the various classes of tutors.

2. What are the leading provisions of the Presumption of Life Limitation (Scotland) Act, 1891?

3. Sketch the law of the forbidden degrees in marriage.

4. Explain historically the law of the apportionment of rents.

II.

1. Trace the development of the law regarding the liability of an employer for personal injury caused to his servant in the course of his work.

2. What is the plea of privilege in the law of slander, and how may it be rebutted?

3. State the leading rules of the law of support of land and buildings.

4. What are the rules that regulate the measure of damages for breach of contract?

III.

1. What are writs in *re mercatorid*, and what privileges do they enjoy?

2. What are the rules for ascertaining the intention of parties, when not otherwise appearing, as to the time at which the property in specific goods sold passes to the buyer?

3. State generally the terms of a bill of lading. How have custom and statute dealt with it?

4. What are the law-agents' (*a*) lien and (*b*) hypothec?

IV.

1. What is the common law liability of trustees in respect of loss of trust funds, and what protection with regard to the investment of trust funds has been introduced by the Trusts (Scotland) Amendment Act, 1891?

2. What is the triennial prescription?

3. Wherein do cessio and sequestration differ?

4. State briefly the rules relating to the crime of concealment of pregnancy.

CONSTITUTIONAL LAW AND HISTORY.

FIRST PAPER.

MONDAY, 14*th March* 1898.—2 *to* 4 P.M.

(SIX *Questions to be answered, at least* TWO *being taken from each Section.*)

A.

1. Describe briefly (*a*) the local government, (*b*) the central government, and (*c*) the mode of preserving order of the Anglo-Saxon period.

2. Describe and discuss the effects of the Norman Conquest upon the political system of England.

3. "Henry II. resisted the encroachments of the Church, founded a national army, and restored the reign of law and order." Explain and discuss.

4. State in outline the history of the Great Charter, and mention a few of its chief provisions.

5. Who was Simon de Montfort, and why is he described as a hero of constitutional history?

6. Sketch the legislation of the reign of Edward I., and explain its importance.

7. Trace the origins of Parliament from Anglo-Saxon times down to 1295.

B.

8. Review the history of the rule, "No taxation without consent of Parliament," from 1295 to 1362.

9. What great statutes were passed in the reigns of Edward III. and Richard II. to obviate papal aggression?

10. Compare the Lancastrian with the Yorkist rule. State the true causes of the Wars of the Roses.

11. Review the reign of Henry VIII., either in its civil or its religious aspect.

12. "The Church of England was founded by Queen Elizabeth in 1563." How far is this correct? Explain and discuss.

13. "The murmuring Parliament of Queen Elizabeth." What success attended it? And how far did the Queen show herself a constitutional sovereign?

14. The Stuart kingship. Its history in brief outline. Causes of the final catastrophe.

SECOND PAPER.

TUESDAY, 15*th March* 1898.—2 *to* 4 P.M.

(SIX *Questions only to be answered.*)

1. Contrast the Revolution Monarchy with that of the Stuarts.

2. Trace the rise of Cabinet Government.

3. Sketch the history of Religious Toleration.

4. Explain and discuss the nature of representative government, and state the imperfections which were partially removed by the first Reform Bill (1832).

5. Sketch the personal government of George III. and its consequences.

6. State and explain the causes of the American Revolution (1765-75).

7. Sketch the history of one of the chief American Colonies (Virginia, Massachusetts, Connecticut, etc.).

8. Enumerate in outline the leading provisions of the American constitution.

9. Write a brief history of the twelve constitutions of France (1791-1875).

10. What are the chief provisions of the present French constitution?

11. Explain the guiding principles of the French group and the Germanic group respectively. Mention the most striking anomalies of the German and Prussian constitutions.

12. Write a short constitutional history of Switzerland, *or* of Hungary.

13. Describe the Swiss polity.

14. Describe and discuss the Austro-Hungarian Compromise, *or* the constitution of Hungary (including Croatia-Slavonia-Dalmatia).

15. Wherein lies the importance of the "adoption and amendment of constitutions"?

CIVIL LAW.

TUESDAY, 15*th March* 1898.—9 *to* 1 *o'clock.*

A.—HISTORY.

(*All Candidates are expected to answer* FIVE *questions in this Group.*)

1. Who were the "*clientes*" of early Roman history, and what was their position?

2. What was the nature of the so-called *leges regiae*? From what source do we mainly derive our knowledge of them, and what is its value?

3. Describe the procedure in an *actio per sacramentum* to determine a dispute regarding land.

4. Trace historically the development of the praetorship in connection with the various departments of legal administration.

5. Give a short account of the rival schools of the Sabinians and Proculians, and exemplify the points on which they differed.

6. Discuss the different senses in which the term *Jus naturale* is employed by Roman writers.

7. Indicate the change in the constitutional position of the Emperors subsequent to the reign of Diocletian.

8. On what lines was Justinian's *Digest* compiled and arranged?

B.—INSTITUTES.

(*The first Question must be answered by all Candidates; Candidates for M.A. or B.L. should attempt* SIX, *and Candidates for LL.B.* FOUR *of the remaining Questions.*)

1. Translate and comment on—

(*a*) Sunt autem adgnati per virilis sexus cognationem conjuncti, quasi a patre cognati, veluti frater eodem patre natus, fratris filius, item patruus.

(*b*) Diutina possessio, quae prodesse coeperat defuncto, et heredi et bonorum possessori continuatur, licet ipse sciat praedium alienum [esse].

(*c*) Siquis alium daturum facturumve quid spoponderit, non obligabitur. . . . Si quis alii, quam cujus juri subjectus sit, stipuletur, nihil agit.

(*d*) Servis autem ipsis quidem nulla injuria fieri intelligitur, sed domino per eos fieri videtur.

2. State shortly the restrictions on manumission imposed by (*a*) Lex Aelia Sentia, (*b*) lex Furia Caninia.

3. By whom, and under what circumstances, might *infamia* be imposed? What were the consequences?

4. Mention the most important classes into which things are divided in the Institutes, explaining the legal grounds for the classification.

5. Enumerate and distinguish briefly the different *personal* servitudes.

6. What heirs could, and what heirs could not, refuse a a succession that had opened to them?

How was entry made by an heir?

7. What rights of succession on intestacy existed between (*a*) mother and child; (*b*) husband and wife.

8. Explain and exemplify *stipulationes judiciales*; *stipulationes praetoriæ*; *stipulationes communes.*

9. In what ways could a contract of partnership be dissolved? What was the law as to the shares, and the mutual duties of the partners?

10. Define *Furtum.*

Discuss the following cases:—

(*a*) A borrower converts a thing lent to him to a use other than that for which it is lent.

(*b*) A person tempts a slave to deliver to him property of his master's.

C.—Digest XVIII. 1 and XIX. 1.

(*To be answered by Candidates for LL.B.*)

1. Translate and explain :—

(1) Qui fundum ea lege emerat, ut soluta pecunia traderetur ei possessio, duobus heredibus relictis decessit. si unus omnem pecuniam solverit partem familiae herciscundae iudicio servabit; nec si partem solvat, ex empto cum venditore aget, quoniam ita contractum aes alienum dividi non potuit.

(2) Si procurator vendiderit et caverit emptori, quaeritur an domino vel adversus dominum actio dari debeat. et Papinianus libro tertio responsorum putat cum domino ex empto agi posse utili actione ad exemplum institoriae actionis, si modo rem vendendam mandavit. ergo et per contrarium dicendum est utilem ex empto actionem domino competere.

2. What were the effects of a sale of (*a*) *res extra commercium*, (*b*) *res aliena*, (*c*) *res furtiva*?

CONVEYANCING.

Wednesday, 16*th March* 1898.—9 a.m. *to* 1 p.m.

(*Any* twelve *questions to be answered.*)

1. Explain the effect of the Conveyancing Act upon the casualties of superiority.
2. Contrast Feu Contract and Contract of Ground Annual.
3. Discuss the effects of a bounding description.
4. Explain the uses and contents of the Charter of Novodamus.
5. Explain the methods of consolidating property and superiority.
6. Treat General Service historically.
7. Discuss the case of Bisset *v.* Walker relating to the infeftment of a plurality of persons and the survivors and survivor.

8. What is a General Disposition? Give explanations as to its contents, its use as a link in title, and the method of completing title upon it.

9. Discuss completion of title in the person of a Judicial Factor.

10. Treat of the real diligence of Inhibition.

11. Sketch the modern deed of strict Entail, and explain the steps necessary to render it effectual.

12. Comment upon the Deed of Consent in Entail procedure.

13. Discuss the use of the *ex facie* absolute Disposition as a security for debt.

14. Treat of real burdens by reservation.

15. State the usual periods of Search in the Sasine and personal Registers given in a Search of Incumbrances.

FORENSIC MEDICINE.

WEDNESDAY, 16*th March* 1898.—2 *to* 4 *o'clock.*

1. Fractures of the CRANIUM.

What is the distinction between Simple, Compound, and Comminuted Fractures? What are their Special Risks? What circumstances should guide the Authorities in granting or refusing Bail in such injuries?

2. What dangerous consequences might follow a kick on the prominence of the abdomen?

3. Define the following Medical legal terms:—Foeticide. Abortion. Miscarriage. Concealment of Pregnancy and Concealment of Birth.

In the two latter Crimes how could a Defence be successfully maintained?

4. In a suspicious Death a very small amount of Arsenic is detected in the stomach, but none in the Urine. What

inference do you draw from this fact, and how might the presence of the Poison be accounted for?

5. On what grounds may the presumption *pater est quem nuptiae demonstrant* be rebutted?

6. How would you fix, approximately, the time during which an infant born alive had survived its birth?

GENERAL JURISPRUDENCE (PHILOSOPHY OF LAW).

THURSDAY, 17*th March* 1898.—9 *to* 11 *o'clock.*

(*Not more than* SIX *questions to be answered.*)

1. What is the aim and scope of the Analytical Method in Jurisprudence? Give some account of the Analytical School.

2. "To regard law as merely that which the State wills or commands is the mistake of a layman who has not considered the difference between modern and archaic societies." Discuss.

3. How has the conception of Territorial Sovereignty affected (*a*) Municipal Law, (*b*) International Law?

4. Examine the legislative activity of the Judicature. What are the defects and merits of Judge-made Law?

5. Are Rights and Duties strictly corelative?

6. What is meant by the expression an "unconstitutional law"?

7. What is the value of the Social Compact Theory?

8. State the chief ideas which have at different times been associated with the conception of the "Law of Nature."

9. Give some account of the Negative School of Jurisprudence.

10. On what various grounds has the institution of Private Property been attacked at different times?

11. According to what principle should acts be treated as Crimes? What views have been held regarding the purpose of Punishment?

PUBLIC INTERNATIONAL LAW.

THURSDAY, 17*th March* 1898.—11.30 *to* 1.30 *o'clock.*

(*Not more than* SIX *questions to be answered, but* ONE *should be answered from each of the series relating to Belligerency and Neutrality.*)

1. Discuss the relations of the Law of Nature and the Law of Nations.

2. What was Private War? By what rules was it regulated? What ecclesiastical restraints were imposed upon it?

3. Write an account of the science of International Law prior to Grotius.

4. Distinguish between a Protected State and a State under Suzerainty, and indicate their disabilities.

5. Examine the right which States possess of protecting their subjects abroad.

6. What do the Territorial Possessions of a State include? Mention any servitudes to which any portions may be subject.

7. To what extent is a Public Vessel in a foreign port free from, and to what extent is it liable to, the local jurisdiction?

8. Write an account of the origin of (*a*) the Foreign Consulate, (*b*) Embassies.

9. What is Enemy-character? To what kinds of Property does it attach?

10. What are the liabilities of the subjects of one Belligerent resident after the outbreak of war in the territory of the other Belligerent in respect of (*a*) their persons, (*b*) their property?

11. What are the effects of a Treaty of Peace?

12. Enumerate the chief duties of Neutral Governments.

13. What is the doctrine of Continuous Voyages? What various applications has it received?

14. State carefully the law relating to Un-neutral Service.

COMMERCIAL AND POLITICAL ECONOMY AND MERCANTILE LAW.

See papers under Faculty of Arts.

ENGLISH LAW.

MONDAY, 14*th March* 1898.—9 *to* 1 *o'clock.*

Only THREE *questions to be answered in each section.*

A. REAL AND PERSONAL PROPERTY.

1. Enumerate and explain the various tenures of English land, distinguishing free and base, certain and uncertain, and stating which (if any) have been abolished. What recent alterations have been made as to copyholds?

2. What provisions were passed by "The Conveyancing and Law of Property Act, 1892," giving protection to underlessees where a lessor is proceeding by action or otherwise to enforce a right of re-entry or forfeiture under any covenant, proviso, or stipulation in the original lease?

3. What is the existing limitation of time for the recovery of real estate? State the effect thereon of disabilities and concealed fraud. Is the time ever extended in favour of any public bodies?

4. Give the leading provisions of "The Land Transfer Act, 1897."

B. EQUITY.

1. "Equity acts in Personam." Explain this maxim, comparing the mode of enforcing a judgment by Courts of Common Law and Courts of Equity respectively, and illustrate by the facts and judgment of a leading case.

2. The Plaintiff in an action desires to deliver interrogatories to the Defendant. How, and under what restrictions, can this be effected?

3. What are the essentials of a valid Donatio Mortis Causa?

4. Explain briefly the doctrines of Election, Satisfaction, Performance. If *A* by will gives to *B* property belonging to *C* of the value of £1000, and by the same will gives to *C* property of his own worth £1500, what would you advise *C* as to his rights?

C. Common Law.

1. Into what engagements does a person enter who draws and negotiates a bill of exchange? What amounts to negotiation of a bill of exchange?

2. *A* at the request of *B* takes considerable trouble to procure an appointment for *B*. After he has done so, *B* promises *A* £100 in recognition thereof. *B* subsequently disavows the promise, and asserts that all *A* did was merely a friendly act and no consideration for the promise. Will such defence succeed, or will *A* recover the £100? Quote a case in point.

3. Give instances where a surety may be released from his contract of suretyship without an express release from the person in whose favour the guarantee was given.

4. Explain the terms Contract, Tort, Trespass, Trespass on the Case.

D. Criminal Law, Practice, Evidence.

1. What opportunity is afforded a prisoner of making a defence or statement before committal for trial, and of calling witnesses?

2. What course would you advise if it were impossible to serve a writ owing to the party to be served being (*a*) in England, but his address unknown; (*b*) in Scotland; (*c*) at a known address abroad; (*d*) his whereabouts utterly unknown?

3. What is the nature of an Order XIV. Summons? What are its advantages and the essentials of obtaining a decree thereon?

4. Define "Best Evidence," and state under what circumstances anything less than best evidence will be received? Is there any peculiarity in Pedigree cases?

Examination Papers for Degrees of M.B. and CH.B.

FIRST PROFESSIONAL EXAMINATION.

CHEMISTRY.

MONDAY, 19*th July* 1897.—10 *to* 12 *o'clock.*

N.B.—*Express your meaning in words, and also by means of equations whenever possible.*

1. What is the chemical nature of Glass? What differences do we find in the composition of different kinds of glass? What is Devitrification?

2. How can Hypochlorous acid be prepared from Bleaching powder? How could you prepare Potassium chlorate from Hypochlorous acid?

3. How is Ethyl acetate prepared? What is the action of Caustic potash on Ethyl acetate?

4. What is the action of aqueous solution of Caustic potash on each of the following? Give in each case the conditions under which the action occurs.

(*a*) Aluminium, (*b*) Ammonium chloride, (*c*) Arsenious anhydride, (*d*) Arsenious sulphide, (*e*) Lead chromate, (*f*) Sulphuric acid, (*g*) Sulphuretted hydrogen.

5. What weight, in grams, of Silver oxide must be taken so as to obtain, by heating it, one litre of Oxygen gas measured

at 0°C. and 760mm. pressure? Carry the calculation to two figures after the decimal point.

(O=16, Ag=108. Two grams of Hydrogen occupy, at 0°C. and 760mm., 22·33 litres.)

MONDAY, 21*st March* 1898.—10 *to* 12 *o'clock.*

N.B.—*Express your meaning in words, and also by means of equations whenever possible.*

1. What is the action of Sulphuric acid on each of the following:—(*a*) Alcohol, (*b*) Charcoal, (*c*) Silver, (*d*) Sulphur, (*e*) Lead? State in each case under what conditions (temperature, concentration) the action takes place.

2. How would you prepare the following substances:—(*a*) Nitrous oxide, (*b*) Iodic acid, (*c*) Carbon disulphide, (*d*) Ethylene dichloride, (*e*) Acetone?

3. What salts in aqueous solution give a white precipitate with caustic potash soluble in excess of caustic potash?

4. Give a sketch of the process you would employ in order to prepare pure ether from alcohol.

5. What volume (in litres) of Hydrogen measured at 0° C. and 760 mm. pressure would be produced by the action of 20 grams of sodium on water? What would be the volume of this hydrogen at 18° C. and 750 mm. pressure?

Carry the calculation to two figures after the decimal point (H=1, Na=23. Two grams of hydrogen occupy, at 0° C. and 760 mm., 22·33 litres.)

PHYSICS.

TUESDAY, 20*th July* 1897.—1 *to* 3 *o'clock.*

(*Not more than* FOUR *Questions to be answered.*)

1. Give Boyle's Law, and explain the limits of its applicability.

In the case of a saturated vapour in presence of its own liquid, what is the effect (1) of a change of temperature, and (2) of a change of volume?

2. State the laws of simple refraction, and illustrate by diagrams (1) the distortion of an object partly immersed in water, (2) the formation of a magnified virtual image by a convex lens.

3. Define a unit of work, a unit of heat, and a unit of energy of electrical charge.

How many of these units respectively would be required (1) to give a mass of 10 lb. a speed of 100 feet per second, (2) to evaporate 15 lb. of a liquid at its boiling point whose latent heat of evaporation is 300, (3) to charge with 20 units of electricity a Leyden jar of capacity 50.

4. Give the successive steps of the full explanation of the rise or depression of a liquid in a capillary tube, and show how the validity of each of these steps can be verified by direct experiment.

5. What quantities determine the velocity (1) of a transverse wave along a stretched string, (2) of a wave of condensation in a fluid?

Discuss the relation between the various notes which can be obtained (1) from a stretched string of finite length, (2) from a closed organ-pipe.

6. Describe *three* of the following instruments, and explain their use:—the Siphon, the Siren, the Thermopile, the Galvanometer, the Nicol Prism.

MONDAY, 21*st March* 1898.—1 *to* 3 *o'clock.*

(*Only* FOUR *Questions to be answered.*)

1. Distinguish carefully between Extensibility and Elasticity. Compare the extensibility of a rubber strip which is doubled

in length by a load of 10 lbs. weight with the extensibility of a wire which has its length increased by 1 per cent. under a load of 1 cwt. The cross-section of the wire being one-tenth that of the rubber strip, compare the moduli of elasticity. (Young's Moduli.)

2. What is the effect of change of pressure on the boiling point of a substance?

From 5 lb. of steam at 150° C. and atmospheric pressure heat is gradually taken until the whole is frozen; describe the successive changes.

3. Explain how the rising of a fish produces waves, and how these waves are propagated?

Compare and contrast this case with any other type of wave motion.

4. Trace the course of rays by which an object is seen through a double concave lens, showing the position of the image. Can the image be real?

A man is short-sighted and cannot see objects clearly which are farther off than 8 inches. What focal length of spectacles is required to extend his range of distinct vision to 3 yards?

5. Describe fully two different ways of measuring the strength of an electric current. What quantities determine the strength of a current flowing round a circuit?

6. Describe and explain the action of an Induction Coil. What optical phenomena do or may accompany an electrical discharge through a Vacuum Tube?

ELEMENTARY ZOOLOGY.

TUESDAY, 20*th July* 1897.—10 *to* 12 *o'clock.*

(*Only* FOUR *Questions to be answered.*)

1. Contrast the fore-limb and shoulder girdle in the following:—(*a*) a fish, (*b*) an amphibian, (*c*) a monotreme, and (*d*) a sheep.

2. Mention the chief subdivisions of the Arthropoda. Describe the various mechanisms for respiration which are met with in the group.

3. Describe the segmentation of any ovum up to the stage when the three primary embryonic layers are distinct.

4. What do you understand by cross fertilization? How may it be secured, and what are some of its advantages?

5. On what two facts did Darwin base his theory of the origin of species? How far does a study of extinct forms support the theory of Evolution?

TUESDAY, 22*nd March* 1898.—10 *to* 12 *o'clock.*

(*Only* FOUR *Questions to be answered.*)

1. Point ont how *Hydra* differs from a sea-anemone, and write a short account of the skeletal structures met with in the group Coelenterata.

2. Huxley classified the birds and the reptiles together in the group Sauropsida. What are the anatomical grounds on which such an arrangement is based.

3. Describe the nervous system and sense-organs of *Arenicola*, *Anodon*, and *Myxine*. How does the last differ (in its nervous system and sense-organs) from the skate.

4. Explain the terms "Survival of the Fittest," "Discontinuous Distribution," "Reversion," "the Swamping Effect of Intercrossing," and "Alternation of Generation." Give examples.

5. Describe the arrangements for nourishing the embryo (1) in a bird, (2) in Marsupials, and (3) in a Rodent or an Ungulate.

ELEMENTARY BOTANY.

MONDAY, 19*th July* 1897.—1 *to* 3 *o'clock.*

(*Only* FOUR *Questions to be attempted.*)

Illustrate your answers by Drawings.

1. Write an account of the gametophyte of a Moss. Compare it with the similar stage in the history of a Fern.

2. What are the characters of the group Thallophyta and of the classes composing it? Describe the modes of feeding of plants of this group.

3. Describe the structure of a typical dorsiventral leaf, and state the functions of the parts you describe. How is leaf-fall brought about?

4. Arrange the fruits of flowering plants in a convenient classification. Define the several categories, and give an example of each.

5. Contrast a root with a shoot in respect of structure and function.

TUESDAY, 22*nd March* 1898.—1 *to* 3 *o'clock.*

(*Only* FOUR *Questions to be attempted.*)

Illustrate your answers by Drawings.

1. Write a short account of the method of nutrition of any flowering plant.

2. Describe any seed and its mode of germination. What external conditions are necessary for the process of germination?

3. What kinds of leaves are met with in Pinus? Describe the appearance, position, and function of each kind.

4. Give an account of the life-history of Saccharomyces.

5. Describe any methods of climbing exhibited by plants. Give one example of each method you describe, and state in each case what is the morphological nature of the organ by which the plant climbs.

SECOND PROFESSIONAL EXAMINATION.

ANATOMY.

FRIDAY, 23*rd July* 1897.—10 *to* 12 *o'clock.*

1. Describe the form of the Kidney and state its position. Give the distribution within the Kidney of the renal blood-vessels (arteries, capillaries, veins), and point out their relation to the tubuli uriniferi.

2. Give the dissection necessary to expose the Costo-coracoid membrane, and describe its attachments and relations.

3. Describe the origin, course, and termination of the Femoral artery. Give the boundaries of the two regions of the thigh in which it is situated. State its relations to the femoral vein.

4. Group the muscles of the Upper Arm, Fore Arm, and Hand in accordance with the nerve supply. State which of these muscles are supplied by more than one trunk.

FRIDAY, 25*th March* 1898.—10 *to* 12 *o'clock.*

1. Describe the form, position, and relations of the *first* rib on the right side.

2. The anterior abdominal wall being reflected state the dissection required to expose the Pancreas. Describe its position, shape, and relations. Describe its structure and the mode of termination of its duct.

3. Describe, step by step, the dissection required to expose the whole length of the External Carotid artery. Name from below upwards its branches in their order of origin.

4. What are the Nerves which traverse the Forearm from above downwards? State the distribution of their branches in that segment of the upper limb.

PHYSIOLOGY.

FRIDAY, 23*rd July* 1897.—1 *to* 3 *o'clock.*

(*Aid your descriptions by sketches when desirable.*)

1. (*a*) Describe the method by which the systemic arterial pressure may be recorded and measured. (*b*) What is the amount of pressure in—say—the femoral artery of a dog, and the difference between that and the pressure in the femoral vein? (*c*) Draw a normal Kymographic tracing, and explain how the respiratory curves are produced.

2. (*a*) Describe the modes in which nerves terminate in the skin on the palmar aspect of the hand. (*b*) Describe the methods by which sensory functions of the skin are tested, and their distribution ascertained.

3. Describe the microscopic appearances presented by a transverse section of one of the larger intrapulmonary bronchi, and state in what respects the structure differs from that of a bronchiole.

FRIDAY, 25*th March* 1898.—1 *to* 3 *o'clock.*

(*Aid your descriptions by sketches when desirable.*

1. Give an account of the minute structure and chemistry of the Thyroid Gland, and show what light has been thrown on its function by experimental and other observations.

2. (*a*) How is the organism affected by variations in the amount of the several primary groups of solid food constituents?

(*b*) How are the pulmonary and renal excretions affected by the above variations?

3. (*a*) Describe the microscopical appearances presented by a vertical section of a motor convolution of the human cerebrum,

and state by what methods the structures you describe have been revealed.

(*b*) Describe the connections, paths, and functions of the fibres comprised in the Pyramidal Tract, and explain how their paths and function have been ascertained.

MATERIA MEDICA.

SATURDAY, 24*th July* 1897.—10 *to* 12 *o'clock.*

1. Describe the action of *Chloride of Ammonium* on the circulation, spinal cord, and skeletal muscles. State its therapeutic uses.

2. Give a general account of the action and uses of *Lead salts.* Mention the doses and preparations of acetate of lead.

3. Compare the action of *Ether* with that of *Chloroform* on the Circulatory and Respiratory systems. What are the therapeutic uses of chloroform when administered by the stomach?

4. Describe Ergot, and explain what it is.

5. In what different ways do *Antipyretics* act? Illustrate your answer by examples.

SATURDAY, 26*th March* 1898.—10 *to* 12 *o'clock.*

1. In what different ways may *Emetics* produce vomiting? Name three officinal emetics, state their doses, and explain how each acts.

2. Describe the chemical and physical characters of *Acetate of Lead.* State its doses, preparations, and therapeutic uses.

3. What are the sources of *Salicin* and *Salicylic Acid*? Contrast the value and therapeutic applications of Salicin, Salicylic Acid and Salicylate of Sodium. Describe the symptoms of overdoses of Salicylate of Sodium.

4. Describe the pharmacological action of *Physostigma* on the eye, the circulation, and the spinal cord.

5. Describe the group-actions, local and general, of *Volatile Oils.*

THIRD PROFESSIONAL EXAMINATION.

PATHOLOGY.

TUESDAY, *27th July* 1897.—10 *to* 12 *o'clock.*

1. *Cancer.*—Describe the histological characters of the principal forms of cancer. What are the chief sites of origin? In what way does cancer spread? What is known of its causes?

2. *Pleurisy.*—What are its causes? Describe its naked-eye and microscopic characters, and the changes which take place in its healing.

3. Describe the naked-eye and microscopic characters of the kidney in acute Nephritis.

4. Describe the micro-organisms of Malaria and of Relapsing Fever, and discuss their relations to these diseases.

SATURDAY, *2nd April* 1898.—10 *to* 12 *o'clock.*

1. *Thrombosis.*—What conditions, (*a*) general, and (*b*) local, lead to the occurrence of thrombosis?

Describe fully the naked eye and microscopic changes in the thrombus at various stages.

2. *Gallstones.*—What is the composition and mode of formation of gallstones? Give an account of the effects which may be produced by them.

3. What are the chief distinctive characters of the following micro-organisms, (*a*) microscopic, and (*b*) in relation to cultures, (1) Bacillus Coli, (2) Pneumococcus, (3) Gonococcus, (4) Actino-

myces? State briefly the pathological conditions with which each may be associated in man, and the sites in which they may be found.

4. Describe briefly the pathological changes in and around the knee-joint in the following kinds of Arthritis, (*a*) Tubercular, (*b*) Rheumatoid, (*c*) Gouty, (*d*) Tabetic.

MEDICAL JURISPRUDENCE.

TUESDAY, 27*th July* 1897.—1 *to* 3 P.M.

1. A body is found with a *shot wound* in the *head.* A *pistol* lies near the deceased.

How would you determine—

(*a*) That the case was, or was not, one of *suicide*?

(*b*) The length of time deceased survived the wound?

(*c*) That the *weapon* was the instrument used and had been recently discharged?

2. A woman is found dead, and on dissection she is found to be three months pregnant. What appearances would justify you in certifying—

(*a*) That *savin* had been administered?

(*b*) That instruments had been used with criminal intent?

3. In the stomach of a person whose death has been attended with suspicion, bluish stains are observed.

(*a*) What may these be due to?

(*b*) What tests would determine their true character?

SATURDAY, 2*nd April* 1898.—1 *to* 3 P.M.

1. In what different ways may the presence of Livid marks on a dead body be accounted for?

(*a*) What steps should the Medical Examiner take to determine their true character?

2. At what stage of pregnancy is Criminal Abortion generally attempted?

3. What post-mortem appearances would you expect to find—

(*a*) Where the Abortion was effected by mechanical means?

(*b*) By a poisonous substance?

4. A person observes a very bitter taste in food he is eating. Shortly afterwards he is seized with convulsions and dies.

(*a*) What may the Poison be?

(*b*) What treatment should be adopted?

(*c*) State in detail the steps of the Analysis for the detection of a substance which would account for the symptoms.

PUBLIC HEALTH.

TUESDAY, 27*th July* 1897.—1 *to* 3 *o'clock.*

I. *Water Supply.*

(*a*) What is "total hardness," "temporary hardness," and "permanent hardness," of water?

(*b*) How is the amount of hardness in water generally calculated?

(*c*) What are the advantages or disadvantages of using hard water as a domestic supply?

(*d*) What would you regard as the limits of total and permanent hardness admissible in a good potable water?

(*e*) Describe shortly Clark's process for softening water.

II. *Small-pox.*

State in detail the measures you would adopt to prevent the spread of infection from a case of small-pox occurring in a private house.

III. *Enteric Fever.*

Mention the dangers that may arise when a case of enteric fever attacking a member of a working man's family, is treated at home; and show how these dangers may be avoided or prevented.

SATURDAY, 2*nd April* 1898.—1 *to* 3 *o'clock.*

I. *Infantile Mortality.*

(*a*) What is meant by the term *Infantile Mortality*?

(*b*) How is the Infantile Mortality rate calculated?

(*c*) What diseases are chiefly responsible for causing a high Infantile Mortality rate?

II. *Enteric Fever.*

Describe the various ways in which Enteric Fever may be spread.

III. *Action of Water on Lead.*

(*a*) Explain why it is that some waters act strongly on lead while others do not.

(*b*) Can you suggest any treatment of water in bulk to prevent it from acting on lead?

FINAL PROFESSIONAL EXAMINATION.

SURGERY.

FRIDAY, 18*th June* 1897.—10 A.M. *to* 12 NOON.

*** *Only* THREE *questions to be answered.*

I.—*Fracture of the Patella.*

1. Varieties. 2. Treatment. 3. Prognosis.

II.—*Cancer of the Rectum.*

1. Symptoms. 2. Affections for which it may be mistaken. 3. Treatment—(*a*) When localised and mobile; (*b*) When extensive and fixed.

III.—*Empyema of Chest.*

1. Treatment. 2. Prognosis.

IV.—*A patient receives a blow on the* RIGHT *frontal region followed by paralysis of muscles of speech, and of right arm and right leg.*

1. What causes would account for such symptoms?
2. What would you do in such a case?

MEDICAL JURISPRUDENCE.

FRIDAY, 18*th June* 1897.—1 *to* 3 *o'clock.*

1. A body is found decapitated. What circumstances would lead you to suspect foul play, and that the mutilation had been made during life?

2. In a suspicious case, articles of clothing, deeply stained of a reddish colour, are found on a dead body. What may these be due to? And what tests would enable you to certify that they were blood stains?

3. Mention the duties of a medical man called on to make a *Post-mortem* Examination in a case of Poisoning. Describe the steps of such an examination, and state the Tests by which the presence of Antimony might be readily detected by a Practitioner.

PUBLIC HEALTH.

FRIDAY, 18*th June* 1897.—1 *to* 3 *o'clock.*

I.—*Milk Supply.*

(*a*) Name the diseases that may be spread through the agency of Milk.

(*b*) Describe the ways in which milk may become specifically contaminated.

(*c*) State shortly what means you would advise to prevent the introduction of infection into a household through milk.

II.—*Ventilation.*

(*a*) What are the impurities that are found in the air of ill-ventilated rooms?

(*b*) Name the sources from which the various impurities may arise.

(*c*) What are the effects on health likely to be produced in persons habitually living in ill-ventilated apartments?

III.—*Trades and Occupations.*

To what diseases are the persons engaged in the following occupations specially liable:—

(*a*) Coal Miners.
(*b*) Painters.
(*c*) Carpenters.
(*d*) Butchers.
(*e*) Bakers.
(*f*) Brassfounders.
(*g*) Water Gilders.
(*h*) Clergymen.
(*i*) Grooms.

MEDICINE.

SATURDAY, 19*th June* 1897.—10 A.M. *to* 12 NOON.

*** *Only* THREE *Questions to be answered.*

1. Name the chief varieties of Peritonitis. Describe the morbid Anatomy, Clinical features, and treatment of the tubercular form, giving one prescription for an external application, and one for a medicine administered internally.

2. Describe and explain any recently discovered methods which might aid in diagnosis between Typhoid Fever and Pneumonia in a doubtful case.

3. What are the diagnostic features (*a*) of intracranial tumor generally, and (*b*) of tumor of the Cerebellum?

4. Describe the morbid Anatomy, Clinical features, and treatment of a case of Acute Post-scarlatinal Nephritis, giving two prescriptions.

MIDWIFERY.

SATURDAY, 19*th June* 1897.—1 *to* 3 P.M.

*** *All* THREE *Questions to be answered.*

I.—*Calculation of Duration of Pregnancy.*

1. Explain how you would calculate for a pregnant woman the probable date of her confinement under ordinary circumstances.
2. State the conditions under which the usual datum might fail or mislead.
3. Where this datum fails, explain what other methods of calculation are available.

II.—*Malposition of the Head.*

1. Define the term.
2. How are malpositions diagnosed?
3. Give the normal mechanism of the commonest malposition.
4. What dangers may arise in the course of a labour with malposition of the head?

III.—*Prolapsus Uteri.*

1. Give the causes.
2. Describe the pathological anatomy of the condition.
3. Give the diagnosis and prognosis.
4. Indicate the treatment—(*a*) palliative; (*b*) operative.

CLINICAL MEDICINE.

Examinations, written, oral and practical, on cases in wards of the Royal Infirmary.

CLINICAL SURGERY.

Examinations, written and oral, on the Symptoms, Diagnosis, and treatment of Surgical Cases in the wards of the Royal Infirmary.

Papers for Degrees in Music.

FIRST PROFESSIONAL EXAMINATION.

ELEMENTS OF MUSIC.

TIME—*One hour.*

1. Write in notes the different forms of the Diatonic Minor Scale (F♯ minor), give their names, and describe their construction.

2. What are the epithets applied to the differently-sized intervals of the same kind (seconds, thirds, etc.)?

3. Name all the Perfect and all the Imperfect Consonances.

4. What intervals are: *a*♭—*b*♭♭, *b*—*a*♯, and *d*♯—*b*♯? Give examples of a Diminished Seventh, and an Augmented Fourth.

5. Write a descending and ascending Chromatic-Scale, from the tonic to its octave, in E♭ major and C minor.

6. Name a dozen Measures, and class them systematically.

7. Write down in a graduated series, from the slowest to the quickest, a dozen terms indicating *Tempo.*

8. Explain the following terms: *con brio, tasto solo, smorzando, basso continuo, mezza voce, Partitur, portamento, Suite, arioso.*

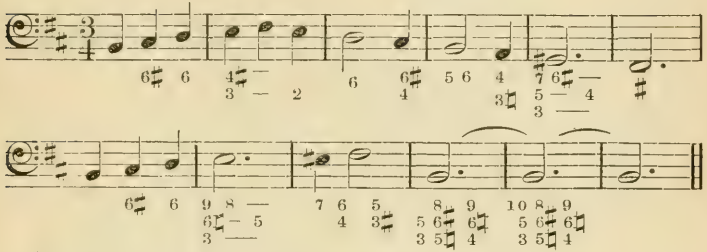
9. What is the meaning in violin music of these signs: ⊔ (or ⊓) and ∨; and in music generally of the following signs: , , , , , and ?

HARMONY.

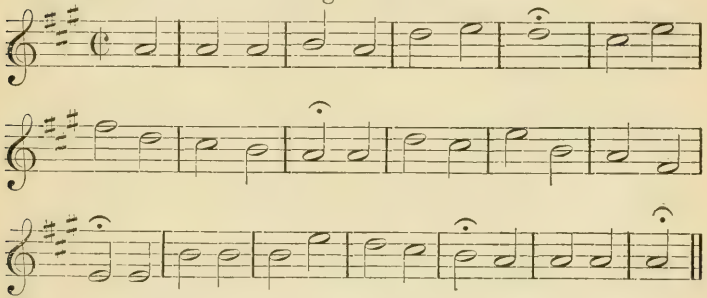
TIME—*Three hours.*

1. Add three parts above the following Figured Bass, giving special attention to the highest part, which should be freely

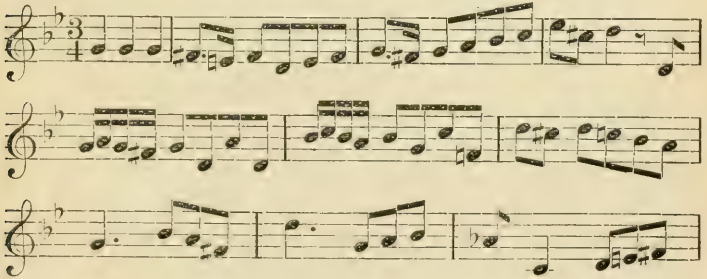
melodic, having now and then more or less notes than the bass :—



2. Harmonise the following Chorale :—



3. Add to the following Melody a simple accompaniment, so that the whole forms a little pianoforte piece :—



4. Resolve the Chord of the Diminished Seventh in E minor in the most common way, and afterwards give four more resolutions, two implying an enharmonic change, two not.

5. Write the following Chords and resolve them in two ways, first cadentially and then otherwise:—

(*a*) Chord of the Tonic Seventh in E major.

(*b*) Second inversion of the Submediant Seventh in D minor.

(*c*) First inversion of the Supertonic Seventh in A flat major.

6. Modulate as follows:—

(*a*) Abruptly from C major to E major, from G major to F sharp major, and from F major to B minor (two forms of each).

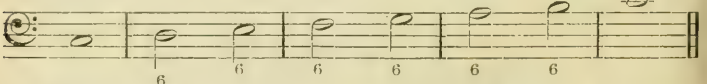
(*b*) By means of a chord common to the two keys, from D major to three other keys.

(*c*) By means of two chords common to the two keys, from E major to two other keys.

(*d*) By means of a chord which is a chromatic chord in the first key and a diatonic chord in the second, from any to any other key.

(*e*) By means of an enharmonic change.

7. Harmonise the following in four parts in what you think the best way. Afterwards try it in another way, and say what is unsatisfactory in it:—



8. Illustrate non-harmonic notes, taking for your harmonic basis the chord of the dominant seventh and the chord of the

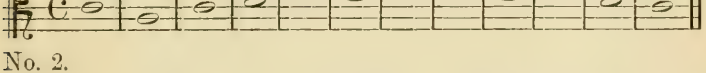
tonic: First a Passing Note, next an Auxiliary Note, then a Direct Anticipation, and lastly an Indirect Anticipation. Further a Suspension.

COUNTERPOINT.

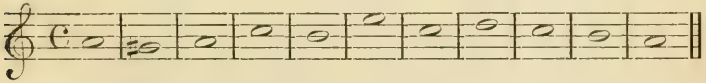
TIME—*Three hours.*

1. What intervals are prohibited in melody in strict style?
2. What is the rule about the use of dissonances?
3. What kind of interval is the Perfect Fourth?
4. What harmonies can be used in strict counterpoint?
5. Write in strict style a melody in F major (beginning: tonic, dominant, etc.) and a melody in B minor (beginning: tonic, mediant, etc.).
6. Write to the following *Cantus firmi* the Counterpoints indicated further on, and do so in open score and using the proper clefs and keys:—

No. 1.



No. 2.



Two-part counterpoint:—

(*a*) A counterpoint in the first species below No. 1.
(*b*) A counterpoint in the second species above No. 1.
(*c*) A counterpoint in the fourth species above No. 2.
(*d*) A counterpoint in the fifth species below No. 2.

Three-part counterpoint:—

(*a*) All parts in the first species, *C.F.* No. 1 in highest part.

(*b*) *C.F.* No. 2 in middle part, highest part in second species, and lowest part in third species.

Four-part counterpoint :—

C.F. No. 2 in bass, the two middle parts in first species, and the highest part in fifth species.

HISTORY OF MUSIC.

TIME—*Three hours.*

1. What is Plain Chant ?

2. Explain the terms Authentic and Plagal as used in connection with the old modes.

3. In what did the old modes differ from those in present use ?

4. When did our tonality begin to gain the ascendency over the old tonality ?

5. Arrange the most important Schools of Composition in chronological order, and mention in connection with them some characteristics, and some of the chief masters.

6. When did Palestrina live ? What do you know of his life and circumstances ? In what respects does his music differ from that of the early Middle Ages and from that of the last two centuries ?

7. When did Monody arise ? What is its nature, what are its aims, and in what forms has it manifested itself ?

8. Who are the greatest composers of oratorios ? When did they live ? Which are their most famous works ?

9. Give a sketch of the history of the Pianoforte Sonata, and mention the most successful cultivators of the form up to the present day.

10. Write brief accounts of the following musicians, comprising the exact or approximate time when they lived, their

nationality, the branch or branches they chiefly cultivated, characterisation of their style, and, if possible, titles of some of their works:—C. Ph. Em. Bach, Giovanni Gabrieli, Méhul, Paganini, Th. A. Arne, Weber, Sir H. Rowley Bishop, William Byrd, Rossini, J. B. Cramer, and Liszt.

FORM.

TIME—*Two hours.*

1. What is a Period, and how is it divisible?

2. By what means are periods articulated?

3. Do you remember a song (folk-song or other), and could you describe its structure (with regard to modulation as well as rhythm)?

4. Analyse the *Introduzione* and the following *Allegro* of Clementi's Sonata Op. 50, No. 3 (Didone Abbandonata). Point out not only the main divisions, but also the subdivisions; not only the subjects, but also their constituents; and pay particular attention to the working out of the subject matter, the utilisation of motives, and modulation.

5. Analyse the Fugue in F minor, No. 12, from the second part of J. S. Bach's "Das Wohltemperirte Clavier."

6. Explain the following terms used in connection with fugal writing:—*Exposition*, *Codetta*, *Episode*, *Inversion*, *Augmentation*, *Diminution*, and *Stretto*.

SECOND PROFESSIONAL EXAMINATION.

RHETORIC AND ENGLISH LITERATURE.

TIME—*Three hours.*

1. Who are the authors of the following works, what is their nature, and when were they written (the approximate time)?—

"The Prelude," "Hudibras," "The Eve of St. Agnes," "Cato," "The Vision of Piers Plowman," "The Dunciad," "Every Man in his Humour," "The Lotos Eaters," "Mazeppa," and "The Cenci."

2. Name two of the most outstanding poets of the 14th, 15th, 16th, and 17th centuries.

3. What are the chief characteristics of Pope, Shelley, and Tennyson?

4. Enumerate specimens of narrative and of lyrical verse of this century. About half a dozen of each.

5. Give the title of the collection of old English heroic ballads, songs, and other pieces that was published early in the second half of the eighteenth century, and had so stimulating an effect on poetry. Who was the editor?

6. Explain what is meant by the following words:—*Anapaestic*; *trochaic*; *hypermetrical*; *truncation*; *caesura*; *metrical metamorphosis.*

7. What kinds of verse are to be found in the following lines?—

"God be with thee, gladsome Ocean!
How gladly greet I thee once more!"

"Glimmer'd a temple upon a breezy headland."

"Soar thou aloft, O my soul! and bear up my song on thy pinions."

"For in that sleep of death what dreams may come."

"The slings and arrows of outrageous fortune."

"As I sat with his head 'twixt my knees on the ground."

8. Scan No. 25 (Campion's "Basia") of the Golden Treasury, and No. 3 (Shakespeare's "Come unto these yellow sands"), indicating the end of a foot by a vertical line and accented syllables by acute accents, noting metrical irregularities, and describing rhyme arrangements, etc. Write a monotone rhythmical composition to No. 3.

9. Read Nos. 267, 324, and 333, and say what is the musical content in them, what the non-musical, and what is indifferent.

10. Write a short expository essay on *one* of the following plays of Shakespeare, and state which parts are favourable for musical drama, which for incidental lyrical or instrumental treatment:—"Macbeth," "Othello," or "King Lear."

INSTRUMENTATION AND CRITICAL KNOWLEDGE OF SCORES.

TIME—*Two hours.*

1. Explain the following expressions to be found in scores:—"a due," "divisi," and "muta."

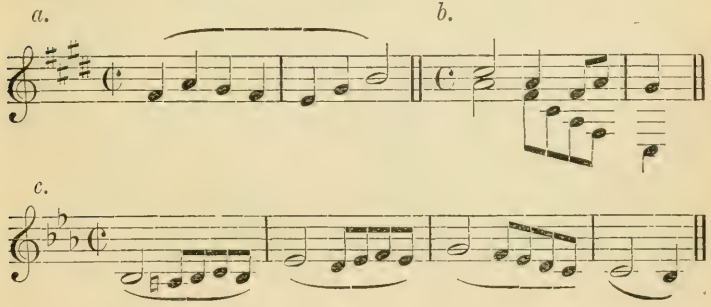
2. What is the compass of the Oboe and Bassoon?

3. What is the tuning of the strings of the Double Bass?

4. Write for the violin, in two ways, the chords of the dominant and tonic in C major.

5. What is a "transposing instrument," and which are the transposing instruments in the usual Haydn, Mozart, and Beethoven orchestra?

6. Write the following passages for the instruments named—*a.* For Horn in E; *b.* for Horns in F; *c.* for Bassoon; *d.* for Clarinets in A; and *e.* for Trumpets in D:—



d.

e.

7. What is the difference between the natural and the valve Horn?

8. Which pitches of the Horn are most frequently used?

9. Enumerate the instruments used by Cherubini in the overture to "Lodoiska."

10. How are the first four bars of the introduction orchestrated, and to which instrument or instruments is entrusted the melody in the rest of the introduction?

11. Describe in what way instrumentation is made use of in the production of the *crescendo* at the beginning of the *Allegro.*

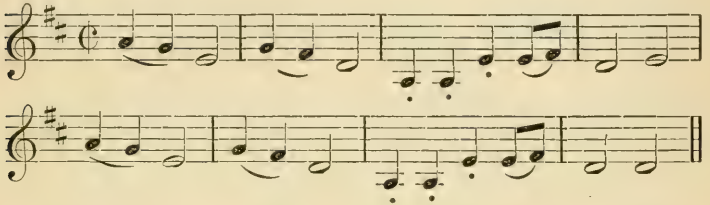
12. Quote part of the second subject, and say what is the instrumentation in the first instance, and what when repeated in major.

13. What are the keys of the movements of Mozart's Symphony in E♭ major, and what Clarinets, Horns, and Trumpets are employed in them? State also how the Kettledrums are employed, and which of the instruments are not employed in all the movements.

14. In which movement are the Horns and Trumpets used for something more than mere rhythmical accentuation and harmonic filling up?

15. In which movement is the Bassoon of melodic importance?

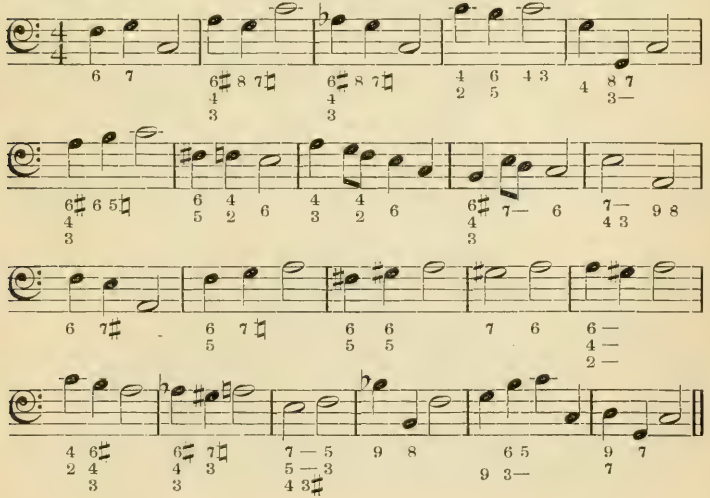
16. From which composition, and what part of it, is the following quotation? How is it harmonised and instrumented on its first appearance, and how on its repetition in the next eight bars?—



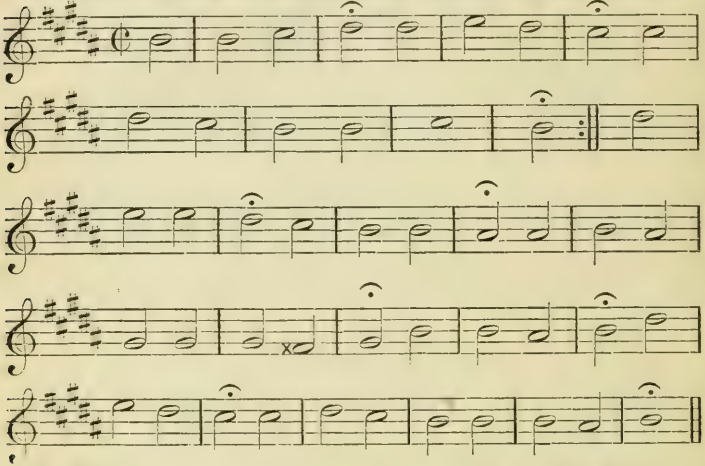
HARMONY.

TIME—*Three hours.*

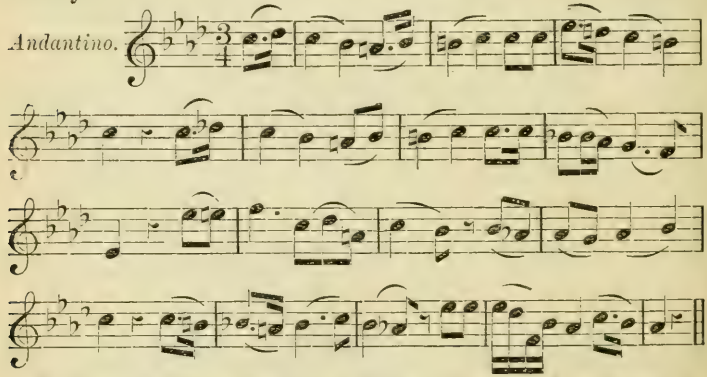
1. Add three parts to the following figured bass, introducing some passing notes, and making these parts, especially the treble, melodically interesting. (In open score.)



2. Add four parts to the following Chorale (in open score):—



3. Write an appropriate accompaniment to the following melody:—

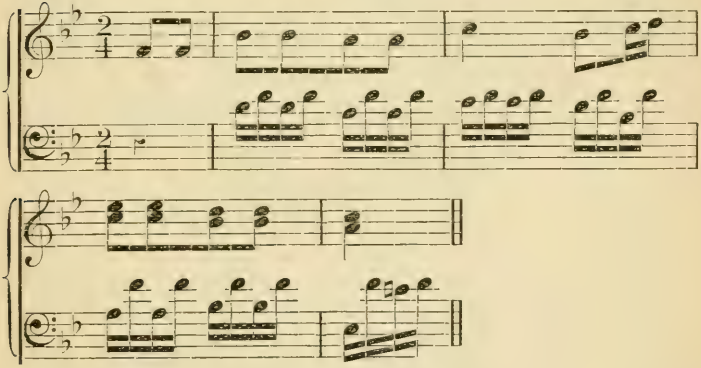


4. Compose two transitions from *a*, the end of one song, to *b*, the beginning of another, the first consisting of a few chords,

the second of something more elaborate, in which may be utilised a motive from one of the two compositions, or from both.

a.

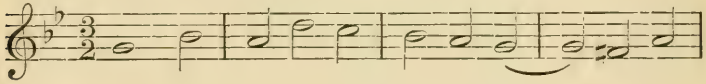
b.

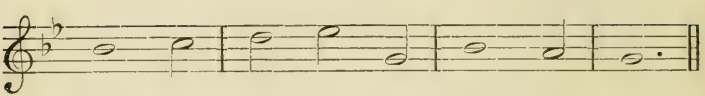


COUNTERPOINT.

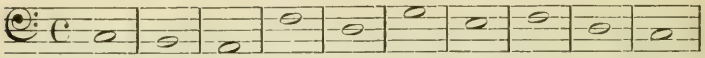
TIME—*Three hours.*

1. Add three flowingly melodious parts to the following melody, placing it first in the soprano, and afterwards in one of the middle parts :—

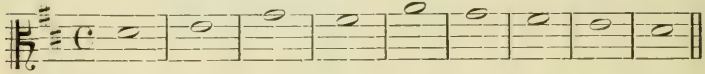




2. Add to the following bass two parts, a middle part of the mixed second and fourth species, and a highest part of the fifth species :—



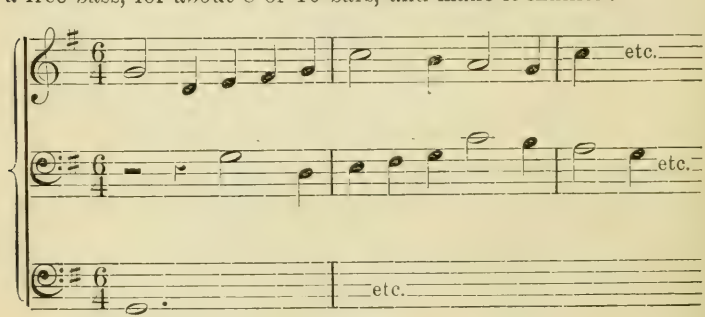
3. Write a Double Counterpoint of the fifth species in the tenth and one in the twelfth to the following cantus firmus. Both positions have to be shown :—



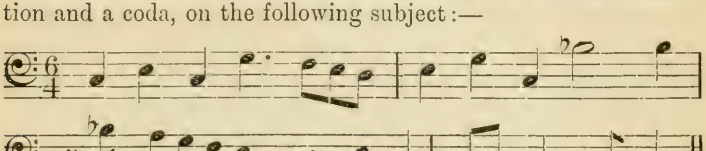
CANON AND FUGUE.

TIME—*Three hours.*

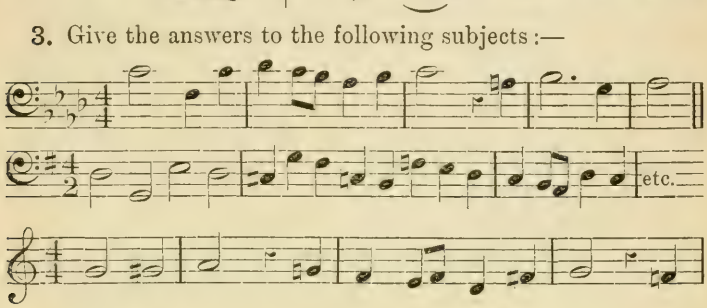
1. Continue the following Canon, 2 in 1, at the octave, with a free bass, for about 8 or 10 bars, and make it infinite :—



2. Write a four-part Fughetta, consisting of a regular exposition and a coda, on the following subject:—



3. Give the answers to the following subjects:—



HISTORY AND FORM.

TIME—*Three hours.*

1. Give an account of the Symphony from Haydn to the present day, including Symphonic Programme Music, such as Berlioz's, Liszt's, etc. Name the composers that distinguished themselves in this branch of the art, enumerate their works (at least the principal of them), and point out the peculiarities in the form and character of each composer's works.

2. Compare Mozart and Wagner as composers of operas. What were their aims, and what were the forms and means

they employed in realising their aims? Technical description rather than aesthetical disquisition is asked for. In short, the main question is—What is the economy of Mozart's operas, and of Wagner's later music dramas?

3. Which composers have distinguished themselves in this century as writers of fugues for the pianoforte and for the organ? Add any remarks that may suggest themselves.

4. By whom are the following works, of what nature are they, and about what time were they composed? If two composers wrote famous works bearing the same title, mention both:—"Les Béatitudes"; "Psalmi Davidis poenitentiales"; "Armide"; "Le Désert"; "Der Tod Jesu"; "The golden Sonata" (this is not a title); "Jean de Paris"; "Die Kunst der Fuge"; and "The Maid of Orleans."

5. Distinguish between Ferdinand Hiller and Johann Adam Hiller; Michael Haydn and Joseph Haydn; Félicien David and Ferdinand David; Gottfried Weber, Dionys Weber, and Carl Maria Weber.

6. Analyse the first two movements of Beethoven's Sonata in B♭ major, Op. 106.

ACOUSTICS.

TIME FOR THIS AND THE FOLLOWING PAPER—*Three hours.*

1. Write the first 16 Partial Tones, taking as the Fundamental E♭, and indicate those notes which do not quite agree with the actual sounds, saying whether these latter are sharper or flatter.

2. Define the expressions Partials, Upper Partials, Overtones, and Harmonics.

3. If the tone c″ is produced by 528 vibrations, by how many vibrations are produced the tones C, g″, and d″?

4. What are the ratios of a major third, a minor third, and a major sixth?

5. What causes the difference in the quality of tone of different instruments—for instance, the flute, the clarinet, and the violin?

6. How do you explain the fact that the quality of tone of a pianoforte is changed by changing the place where the strings are struck by the hammers?

7. Define the terms Difference Tones and Summation Tones.

8. What Difference Tones are produced by the following couples of tones:—d′—a′; c′♯—a′; e′—g′♯?

9. What Summation Tones are produced by the same couples of tones?

10. How arise Beats?

11. What is the nature and object of Equal Temperament? Are there other Temperaments? and what is tempered?

PHYSIOLOGY OF THE VOCAL ORGANS.

1. Name and describe the several organs that co-operate in the production of vocal sounds.

2. If you have not done so already in answer to the foregoing question, describe now, in detail, the Larynx.

3. Point out the places of the following parts, and explain the meaning of the terms—Glottis, Pharynx, Cricoid Cartilage, Arytenoid Cartilage, and Thyroid Cartilage.

4. What is the action of the Vocal Chords in the production of sound?

5. What are the false Vocal Chords?

6. Explain what is meant by diaphragmatic, costal, and clavicular breathing.

7. Mention one or more theories as to the production of the Falsetto.

8. What is a Laryngoscope?

HONOURS IN HISTORY.

CONSTITUTIONAL HISTORY.—Modern European Constitutions.

Monday, *4th April* 1898.—2 *to* 5 p.m.

(Six *Questions at most to be answered.*)

1. Sketch the constitutional history of France from 1789 to 1884.

2. State and discuss the chief provisions of the present French constitution.

3. Trace in outline the history of the Swiss Confederation from 1291 to 1874.

4. Describe shortly the main features of the Swiss polity

5. (*a*) Discuss the various theories of "sovereignty." (*b*) How are constitutions adopted, and how amended?

6. What were the chief changes introduced by the Congress of Vienna into the political systems of Europe?

7. What are the main points of interest in (*a*) the history, and (*b*) the constitution of Denmark?

8. Sketch the history of the Germanic Confederation from 1815 to 1871.

9. (*a*) "The German Emperor is an absolute sovereign." (*b*) "The Prussian Chamber of Deputies is mainly representative of money." Examine these statements, and say if they are well founded.

10. (*a*) Explain shortly the nature of the Austro-Hungarian Union; or (*b*) write a short history of Hungary.

11. Describe the machinery of local government in any one of the countries above mentioned.

SPECIAL EXAMINATION IN GREEK

FOR

CANDIDATES FOR HONOURS IN MENTAL PHILOSOPHY

Who have not included Greek as a subject in the Examinations for the Ordinary Degree of M.A.

WEDNESDAY, 6*th October* 1897.—11.30 A.M. *to* 1.30 P.M.

1. Passages from set books for translation into English:—

ARISTOTLE, *Nic. Ethics*, I.:

1095 *a* 30, μὴ λανθανέτω . . . γνωρίμων, 1095 *b* 4.

1101 *a* 14, τί οὖν . . . ἀνθρώπους, 1101 *a* 21.

PLATO, *Republic*, VII.:

517 A, ταύτην τοίνυν . . . τυγχάνει, 517 B.

533 C, οὐκοῦν . . . ἐπιστήμης, 533 D.

Or,

PLATO, *Protagoras*:

324 A, εἰ γὰρ . . . κολασθέντα, 324 B.

356 C, φαίνεται . . . δύναμις, 356 D.

2. Unseen passage for translation into English:—

PLATO, *Gorgias*:

449 C, φέρε δή . . . λόγους, 450 B.

Examination Papers printed by T. and A. CONSTABLE, at the University Press.

New Foundations.

REGULATIONS FOR GEORGE HERIOT RESEARCH FELLOWSHIPS.

(1). These Fellowships shall be open to Graduates and others who have attended for not less than two *academic* years at the University of Edinburgh within the ten years immediately preceding the date of appointment.

(2). The annual stipend of the Fellowship shall be £100, and the tenure shall, in the first instance, be for one year only, but may be renewed for a second year as hereinafter provided.

(3). The Fellowships shall be awarded by the Governors on the report of a Committee to be called the Heriot Research Fellowship Committee, which shall consist of the following permanent members: —the Deans of the Faculties of Arts, Science, Law and Medicine in the University of Edinburgh, the Convener of the Education and Bursary Committee of the Heriot Trust, and three other Governors, one of whom shall be the Governor representing the Royal Society of Edinburgh. This Committee shall have power to add to its number on any special occasion any Scientific Experts or men of learning whose opinion they may desire to have in enabling them to arrive at a decision.

(4). Four Fellowships shall be offered each year. Applications shall be entertained in each of the following three groups of study:—

1. Mathematical, Physical, Experimental and Natural Science.
2. Language and Literature, including Classical Archæology.
3. Philosopy, History and Law.

But the research Fellowship Committee shall not be bound to award Fellowships in all or in any of these departments; and shall, in making their award, have regard solely to the importance of the research projected by the applicant, and to the likelihood of good results being obtained.

(5). Applications for Fellowships or for renewal of Fellowships shall be made in each year not later than 1st June, and for the purpose of construing these Regulations, the date of appointment shall be held to be 1st August.

(6). Every application for a Fellowship shall be accompanied by—

(*a*) An account in detail of the research which the applicant proposes to undertake, together with a statement showing that sufficient time and appliances are at his command to enable him to do the projected work during his year of tenure.

(*b*) A narration of the experience or training of the applicant, showing his fitness to undertake the work projected, in particular an account of some piece of work already done by him in the same or in a kindred department.

(*c*) A recommendation from some recognised investigator or teacher, who can certify from personal knowledge of the applicant his fitness to undertake the research which he proposes.

Beyond these documents, no further testimonial or application shall be submitted to the Heriot Research Fellowship Committee; but the applicants may be required to answer, either orally or in writing, any inquiries which that Committee may think it desirable to make.

(7). During his year of tenure the Fellow shall prosecute the research proposed in his application for the Fellowship, and shall submit reports of his progress to the Heriot Research Fellowship Committee when required to do so.

Every Fellow shall be required to publish the results of his work in the Proceedings or Transactions of some British Scientific or Learned Society, in some British Scientific Journal, or in the form of a book published in Britain, unless, in the opinion of the Heriot Research Fellowship Committee, this publication shall be considered unnecessary on the ground of expense or for other reasons. This publication shall bear in its title that the results in question were obtained during the writer's tenure of the George Heriot Research Fellowship in the University of Edinburgh. A copy of the publication containing the results of the Fellow's work shall in all cases be presented to the Edinburgh University Library.

(8). Payment of the stipend of the Fellowship shall be made half-yearly in advance. Before receiving any payment after the first, the Fellow shall submit, for the approval of the Heriot Research Fellowship Committee, a report on the progress of his work. The approval of this report, to be intimated through the Convener of the Education and Bursary Committee of the Heriot Trust, shall be warrant to the Treasurer of the Trust for the payment of the Fellow's stipend.

(9). It shall be open to any Fellow to apply for a renewal of his Fellowship for one year, and such application shall be accompanied by a full statement of the work already done by the Fellow, together with a statement of further work projected.

All applications for renewal shall be discussed by the Heriot Research Fellowship Committee along with, and shall have no precedence over, fresh applications.

(10). A Heriot Fellowship shall not, without the express sanction

of the Governors, be held along with any other Bursary, Scholarship or Fellowship.

(11). It shall be in the power of the Heriot Governors at any time to make such inquiries through the Heriot Research Fellowship Committee as they may desire into the work and conduct of a Heriot Fellow, and to suspend or discontinue his Fellowship should they see fit. In such cases the decision of the Governors shall be final.

(12). The above Regulations may be altered from time to time by the Senatus of the University of Edinburgh, with the approval of the Governors of George Heriot's Trust.

REGULATIONS FOR GEORGE HERIOT'S TRAVELLING SCHOLARSHIPS FOR TEACHERS OF MODERN LANGUAGES (MEN OR WOMEN).

1. These Scholarships are founded to enable Students who intend to devote themselves to the teaching of Modern Languages to travel abroad in order to extend their linguistic studies, and in particular, to perfect their colloquial knowledge of the language of their special study.

2. Two of these Scholarships shall be offered for competition each year—one for French and one for German ; but should either, for any reason, not be awarded in the language for which it was originally destined, two may be given for the other of the two languages mentioned, or one may be given for Italian, Spanish, or other modern language.

3. The Scholarships shall be open to Graduates in the Faculty of Arts of the University of Edinburgh, of not more than four years' standing at the date of their election as Scholars, who have graduated in the Department of Modern Languages, have obtained the Schoolmaster's Diploma in the University of Edinburgh, and who are, or who intend to become, Teachers of Modern Languages.

[1] For the purpose of construing these Regulations, the date of appointment of a Scholar shall be held to be the day after the Spring Graduation Ceremonial immediately following the competitive Examination for the Scholarships.

4. All applications for these Scholarships must be lodged with the Governors of George Heriot's Trust not later than 15th March in each year. Applicants must state in writing, and if required, produce other evidence that they are, or intend to become, Teachers of Modern Languages, and acceptance of a Scholarship shall be held by the Governors to be a *bona fide* engagement to enter upon such a career.

5. Each Scholarship shall be of the annual value of £100, and shall be tenable for one year. A Candidate who has held one of the Scholarships shall not be eligible for re-election to another in the same language, but may be elected to one in another language.

[1] On the first occasion of award, the election of successful Candidates will be antedated as from 14th April 1893, and applications must be lodged not later than 15th April.

6. The Scholarships shall be awarded by a Competitive Examination, which shall be combined, as far as possible, with the Degree Examination for Honours in Modern Languages; and the standard of the examination shall be the Honours standard.

The Examiners shall be the Lecturers in Modern Languages, in conjunction with the additional Examiner for Degrees in Modern Languages appointed by the University Court.

7. It shall be in the power of the Governors to refuse to award a Scholarship to any Candidate who, in their opinion, has not attained a sufficient standard of proficiency in the Examination.

8. Each Scholar shall be required, on his appointment, to submit to the Governors for approval, a general programme of his sojourn and studies abroad; and this programme must bear, in token of his approval, the signature of the Lecturer in the language for which the Scholarship is held.

Each Scholar shall be required to satisfy the Governors, by quarterly reports written in the language for which the Scholarship is held, that he is carrying out his programme, and making full use of the opportunities afforded him by the tenure of the Scholarship. These reports shall also be countersigned, in token of approval, by the Lecturer in the respective language.

9. The Stipend of the Scholar shall be payable in two equal instalments, one half on appointment, and the other half as soon as possible after the receipt and approval of the second quarterly report.

10. It shall be in the power of the Governors, at any time, to inquire into the progress and conduct of any Scholar, and if the result of such inquiry be unsatisfactory, to deprive him of his Scholarship. The decision of the Governors in such cases shall be final.

11. These Scholarships shall not, without the express sanction of the Governors, be held along with any other Bursary, Scholarship or Fellowship.

12. The above Regulations may be altered from time to time by the Senatus of the University of Edinburgh, with the approval of the Governors of George Heriot's Trust.

REGULATIONS FOR THE M'COSH GRADUATE'S BURSARY AND THE M'COSH MEDICAL BURSARY.

1. Each bursary shall be tenable for one year, during which the holder shall be required to prosecute study or research in a Medical School or Medical Schools of Europe, it being in the discretion of the Faculty of Medicine to award both Bursaries to the same person.

2. Appointment to the Bursaries shall be made under recommendation of the Faculty of Medicine, and application shall be made to the Dean of the Faculty of Medicine not later than the end of the third week of July, and shall be accompanied with a statement of the name or names of the Medical Schools intended to be visited, of the time

proposed to be spent at each School, and of the nature of the study or special work proposed to be engaged in.

3. Bachelors of Medicine and Bachelors of Surgery shall be eligible for appointment during one year after receiving these Degrees.

4. In considering the claims of Candidates, the Faculty of Medicine shall take into account not only their professional attainments and ability, but also the knowledge they possess of foreign languages ; and it shall be in the option of the Faculty to satisfy themselves with regard to this knowledge by the examination of Candidates.

5. Candidates shall not be disqualified because they already hold a Bursary, Scholarship, or Fellowship, except in the cases where the Bursary, Scholarship, or Fellowship requires as a condition of tenure the prosecution of original research, or some other condition which may be interfered with by the holding of a M'Cosh Bursary.

6. Holders of the Bursaries shall be required at the end of each three months to transmit to the Dean of the Faculty of Medicine a report of the manner in which they are pursuing their studies, or of the progress being made in any special work in which they are engaged.

Benefactors of the University.

THE Revenues of the University were formerly scanty and very inadequate for the encouragement of the higher education and learning in the Scottish metropolis. Scholarships and Fellowships were unknown prior to those recently instituted, and the emoluments of several of the Chairs are still greatly inferior to those in many other Universities.

During the early period of its history, the University received a considerable number of small donations and bequests, chiefly for Bursaries. Notices of these will be found in the preceding pages, in the Histories of the University by Bower, Dalzel, and Grant, and in the Report of the Universities' Commissioners in 1830. A list of early Benefactors to the Library is given at p. 42.

By Act 1 & 2 Vict., cap. 55, the various sums of money mortified in the hands of the Town Council for the support of the University, amounting to £13,119, were discharged, and an annual payment of £2500 (since reduced to £2170), secured in terms of "The Edinburgh Corporation Stock Act, 1894," over the Common Good of the City, &c.

Within this century, but especially since 1860, many donations and bequests have been made by Benefactors of the University for the foundation of Fellowships, Scholarships, and Bursaries, for the endowment of Chairs, and for the erection of the New Buildings, including the great "M'Ewan Hall." As the University, however, is still very inadequately endowed, much requires to be done that it may not fall behind the requirements of the age. Intending Benefactors are respectfully reminded that additional CHAIRS, LECTURESHIPS, LABORATORY EQUIPMENTS, LIBRARY ENDOWMENTS, SCHOLARSHIPS, BURSARIES, and FUNDS for RESEARCH, for GENERAL MAINTENANCE, and for BUILDING, are urgently required. The

names of Benefactors, if so desired, may be connected with the Benefactions they bestow. Such Benefactions may simply be conveyed to the "University of Edinburgh." All necessary information will be gladly afforded by the Secretary of the University Court, the Secretary of Senatus, the Registrar, the Deans of the Faculties, or the University Librarian.

The following list includes the chief Benefactors of the present century, together with the purposes of their benefactions[1] :—

(A.)—*Founders of Bursaries in the present Century.*

Rev. J. STUART, South Carolina—Founder of the Stuart Bursaries.

Sir JOHN M'PHERSON, late Governor-General of India—Founder of the M'Pherson Bursary (now the Macpherson Scholarship).

Rev. R. BLAIR, D.D.—Founder of the Blair Bursaries in Arts and Theology.

J. STEWART HEPBURN, Esq. of Colquhalzie—Founder of three Theological Bursaries.

JOHN JAMIESON, Esq., Edinburgh—Founder of the Jamieson Bursary.

GEORGE PARKER BIDDER, Esq.—Founder of the Jardine Bursary.

WILLIAM LENNIE, Esq., Teacher, Edinburgh—Founder of the Lennie Bursaries.

JOHN BRUCE, Esq., Trinity Crescent, Edinburgh—Founder of the Bruce Bursaries.

M'DIARMID TESTIMONIAL TRUSTEES—Founders of the M'Diarmid Bursary.

W. PATRICK, Esq. of Roughwood—Founder of the Patrick Bursaries.

JAMES GRAY, Esq. of Baadpark—Founder of the Gray Scholarship.

EDINBURGH CAITHNESS ASSOCIATION—Founders of a Bursary.

EDINBURGH GALLOWAY ASSOCIATION—Founders of a Bursary.

AYRSHIRE CLUB—Founders of two Bursaries.

PEEBLESSHIRE SOCIETY—Founders of a Bursary.

Dr ABERCROMBIE, Cape Town—Founder of a Bursary.

Mrs MARGT. TYNDALL BRUCE of Falkland—Founder of Bursaries.

TRUSTEES of FRANCIS J. SCOTT, Esq. of Mount Lodge, Portobello—Founders of two Bursaries.

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[1] An Association exists for the purpose of keeping the Public informed regarding the existing insufficiency of the Endowments of the University of Edinburgh, collecting funds, and appropriating them to the further extension and better endowment of the University, and to other purposes tending to promote the efficiency of the University as a seat of learning.

Chancellor of the University is President of this Association; the Hon. Secre- Sir Alexander Christison, Bart.; and the Secretary is Robert G. Scott, Esq., 61 Castle Street, Edinburgh.

Miss HANNAH HARRISON of Lasswade—Founder of a Bursary.

Miss MARY ETTLES of Inverness—Founder of three Bursaries, and the "Ettles Medical Scholarship."

TRUSTEES of the Rev. JOHN SPENCE, Minister of Kinnaird—Founders of two Bursaries.

JOHN ROBERTSON SIBBALD, M.D.—Founder of Five Bursaries.

ARGYLLSHIRE, BUTE, and WESTERN ISLES ASSOCIATIONS—Founders of a Bursary.

SUBSCRIBERS to MEMORIAL to ROBERT STEWART, Esq. of Ardvorlich—Founders of a Bursary.

THE EDINBURGH BORDER COUNTIES ASSOCIATION—Founders of two Bursaries.

THE RIGHT HON. THOMAS, EARL OF ZETLAND—Founder of the Orkney and Zetland Bursary.

TRUSTEES OF JAMES GRIERSON, OF OGSCASTLE—Founders of the Grierson Bursaries.

TRUSTEES OF Dr MACKIE, Leith—Founders of Mackie Bursaries.

TRUSTEES of J. CAIRNS, Esq., W.S.—Founders of the Cairns Bursary.

TRUSTEES OF Mrs JOHNSTONE of Harthope, Moffat—Founders of the Johnstone of Harthope Bursary,

TRUSTEES OF JAMES LAMBERT, Esq., Alloa—Founders of the Lambert Bursary.

ROBERT MARSHALL, Esq., Merchant, Edinburgh—Founder of the Marshall Bursary.

JOHN FOTHRINGHAM, Esq. of Heathpool—Founder of the Fothringham and Forrest Bursaries.

Right Hon. LAWRENCE, EARL OF ZETLAND—Founder of the Zetland Bursaries.

ANDREW THOMSON, M.D.—Founder of Eight Bursaries in Arts, Divinity, Law, and Medicine.

EDINBURGH EAST LOTHIAN ASSOCIATION—Founders of a Bursary in Arts.

EDINBURGH UNIVERSITY ENDOWMENT ASSOCIATION—Donors of Bursaries in Arts.—Discontinued.

Mrs ISABELLA WEBSTER—Founder of the Webster Bursaries in Divinity.

Dr JOHN AITKEN CARLYLE—Founder of two Bursaries in the Faculty of Medicine.

Mrs ELIZABETH MACKENZIE—Founder of the Mackenzie Bursaries.

TRUSTEES OF Mrs BARBARA MACAULAY OR MYLNE—Founders of a Bursary in Divinity.

TRUSTEES OF Rev. JOHN PATTERSON—Founders of a Bursary in Anglo-Saxon Grammar and Literature.

THOMAS CARLYLE—Founder of the John Welsh Bursaries in Mathematics and Classics.

Mrs HELEN ANDERSON or RONALD, Liverpool—Founder of the Anderson Bursaries.

SUBSCRIBERS to Testimonial to W. MACKINNON, Esq. of Balinakill —Founders of the Mackinnon Bursaries.

TRUSTEES of JAMES WHITELAW—Founders of Whitelaw Bursaries.

TRUSTEES of WILLIAM RENTON, Esq.—Founders of a Bursary in Divinity, and one in Arts.

Miss ISABELLA MACDOUGALL, Perth—Founder of the John and Isabella Macdougall Bursaries.

ROBERT HUNTER, Esq., Dalhousie Chesters—Founder of two Bursaries in Divinity.

ROBERT PILLANS NEWTON of Castlandhill and Drumcross—Founder of the Newton Bursaries.

PETER CAMPBELL MANN of Seaham Harbour, Durham—Founder of a Bursary.

CHARLES JARDINE of Thorlieshope—Founder of Bursaries in Arts.

ISAAC ANDERSON HENRY—Founder of the Anderson Henry Prize.

Mrs H. E. MORISON—Founder of the Mackenzie (Stornoway) Bursary.

DANIEL MACLAURIN, Esq.—Founder of the Maclaurin Bursary.

THOMAS LOCKERBY, Esq.—Founder of the Lockerby Bursary.

GEORGE COUSIN, Esq.—Founder of the "Bailie Cousin Bursary."

THOMAS HILL PATTISON, M.D.—Founder of the Pattison Prize in Clinical Surgery.

Major ROBERT ORR CRICHTON of Lynn—Founder of the Crichton Bursaries in the Faculty of Medicine.

Rev. THOMAS MAULE—Founder of Maule's Bursaries.

Mrs A. B. R. MILNER FOTHERGILL of Hayton Quarry—Founder of the Milner Fothergill Gold Medal in Therapeutics.

DONALD FRASER, M.D., London, and ASSOCIATION for the BETTER ENDOWMENT of the UNIVERSITY—Founders of the Donald Fraser Bursary in Experimental Physics.

SUBSCRIBERS TO MEMORIAL TO PROFESSOR KELLAND—Founders of Kelland Memorial Prize.

GOVERNORS OF GEORGE HERIOT'S TRUST—Founders of Bursaries in Arts, Science, and Medicine.

Dr THOMAS CHARLES HOPE, late Professor of Chemistry—Founder of the Hope Prize (now two Hope Scholarships).

Mrs MARGARET TYNDALL BRUCE—Founder of Prize in Logic Class.

DANIEL ELLIS, Esq.—Founder of "The Ellis Prize" in the Faculty of Medicine.

JOHN EDWARD BAXTER, Esq., of Craigtay, bequeathed the reversion of his Estate for the purpose of founding Scholarships, etc.

Dr NEIL ARNOTT gave £1000 for Promoting the Study of Experimental Physics among the Medical Students of the University.

Rev. HEW SCOTT of Wester Anstruther—Founder of the Scott and Dunbar Prize in Greek.

JOHN WILSON, Esq. of South Bantaskine—Founder of the Robert Wilson Prize in Chemistry.

Mrs E. WIGHTMAN—Founder of the Wightman Prize in Clinical Medicine.

JAMES GEORGE BEANEY, Esq.—Founder of the Beaney Prize.

ANDREW ROBERTSON CAMERON, M.D., of Richmond, New South Wales—Founder of the Cameron Prize.

(B.)—*Founders of Scholarships or Fellowships in the present Century.*

THE PITT CLUB—Founders of two Scholarships, one in Arts and one in Divinity.

JAMES MACKENZIE, Esq., W.S.—Founder of Mackenzie Scholarship.

ALEX. HENRY RHIND, Esq. of Sibster—Founder of the Rhind Scholarships and Bursaries.

Sir DAVID BAXTER, Bart., of Kilmaron—Founder of the Baxter Scholarships in Arts and Science.

Sir WILLIAM FETTES, Bart.—Founder of the Fettes Exhibitions.

JOHN MAXTON, Esq.—Founder of a Divinity Scholarship.

Miss ELIZABETH DRUMMOND—Founder of the Drummond Scholarship.

Mrs MARGARET TYNDALL BRUCE—Founder of three Scholarships.

JAMES GUTHRIE, Esq., of London—Founder of the Guthrie Fellowship.

SUBSCRIBERS to HAMILTON MEMORIAL FUND, and ASSOCIATION for the BETTER ENDOWMENT of the UNIVERSITY—Founders of a Philosophical Fellowship.

ASSOCIATION for the BETTER ENDOWMENT of the UNIVERSITY—Founders of a Classical Fellowship.

TRUSTEES of Dr J. H. GILCHRIST—Founders of three Scholarships for Natives of India.

JOHN ROBERTSON SIBBALD, M.D.—Founder of a Medical Scholarship.

Miss MARY BAXTER, of Balgavies—Founder of Scholarships.

SUBSCRIBERS to FALCONER MEMORIAL FUND—Founders of a Fellowship.

SUBSCRIBERS to SYME FELLOWSHIP—Founders of a Fellowship in the Medical Faculty.

SUBSCRIBERS to GOODSIR MEMORIAL FUND—Founders of a Fellowship in the Medical Faculty.

Rev. JOSEPH TAYLOR GOODSIR bequeathed £900 to Supplement the Goodsir Memorial Fund.

OBERT A. GOODSIR, M.D., Edinburgh, bequeathed residue of his Estate, amounting to about £2000, to supplement the Goodsir Memorial Fund.

TRUSTEES OF Mrs CHARLES MACLAREN—Founders of the Charles Maclaren Scholarship.

SUBSCRIBERS to GLOVER MEMORIAL FUND, and ASSOCIATION for the BETTER ENDOWMENT of the UNIVERSITY—Founders of the "Glover Divinity Scholarship."

Mrs M. ARNOTT, Widow of NEIL ARNOTT, M.D.—Founder of the "Neil Arnott Scholarship for Experimental Physics."

JOHN EDWARD BAXTER, Esq. of Craigtay, bequeathed the residue of his estate, out of which three Scholarships named after him have been founded by the University Endowment Association.

The Rev. DAVID AITKEN, D.D., formerly Minister of Minto—Founder of the Aitken Scholarship.

DAVID SKIRVING, Esq., of 13 Westbourne Park, London—Founder of the Skirving Scholarship for Moral Philosophy.

ANDREW THOMSON, M.D.—Founder of a Scholarship.

Misses KIDD of Woodhouse—Founders of the David Kidd Divinity Scholarship.

Dr R. H. GUNNING of Rio Janeiro—Founder of ten Prizes in the Faculty of Divinity, and of eleven Prizes in the Faculty of Medicine

Dr T. LECKIE—Founder of the Leckie-Mactier Scholarship.

SUBSCRIBERS TO MEMORIAL OF Dr COLDSTREAM—Founders of the Coldstream Memorial Medical Missionary Scholarship.

Mrs JAMES BUCHANAN—Founder of a Scholarship in Midwifery and Gynecology.

Dr ANDREW VANS DUNLOP, H.E.I.C.—Founder of the Vans Dunlop Scholarships in Arts, Law, and Medicine.

Misses STEVEN of Bellahouston—Founders of a Scholarship in Agriculture.

SUBSCRIBERS TO MEMORIAL OF Dr CHARLES MURCHISON—Founders of the "Charles Murchison Scholarship."

Mrs MARY ANN SCOTT or THOMSON of Hawick—Founder of the James Scott Scholarship in Midwifery

ROBERT MACKAY-SMITH, Esq., Edinburgh—Founder of the Mackay-Smith Scholarships in Natural Philosophy and Chemistry.

Dr FREDERICK JOHN MOUAT—Founder of the Mouat Scholarship in Practice of Physic.

Dr JOHN STARK, Auchtermuchty—Founder of the Stark Scholarship in Clinical Medicine.

Mrs KIDD—Founder of "James Fairbairn's Scholarship."

Miss JANE JEFFREY—Founder of the Jeffrey Scholarships.

Dr A. H. FREELAND BARBOUR—Founder of the Freeland Barbour Fellowship.

Miss MATILDA JOHNSTON COBB—Founder of the Cobb Divinity Scholarship.

Mrs ELIZABETH MACKIE or TREVELYAN—Founder of Scholarships in Engineering and Mechanical and Useful Arts.

Mrs MUIRHEAD—Founder of Prize in Civil Law Class.

SUBSCRIBERS TO LORIMER MEMORIAL FUND AND ASSOCIATION FOR THE BETTER ENDOWMENT OF THE UNIVERSITY—Founders of the Lorimer Travelling Scholarship.

GEORGE SCOTT, Esq., Peckham, London — Founder of the Scott Travelling Scholarship, for purposes of Study or Research.

GOVERNORS OF GEORGE HERIOT'S TRUST—Founders of Fellowships in Arts and Pure Science.

Mrs E. CROZIER or NICHOL, Edinburgh—Founder of Scholarship in Natural Philosophy.

TRUSTEES OF THE EARL OF MORAY—Founders of "The Earl of Moray's Endowment of £20,000" for Original Research.

Misses MARGARET KEITH AYTOUN and ISABELLA AYTOUN—Founders of the Edmondstone Aytoun Fellowship.

Mrs JANE ALLAN, widow of the late John Allan, M.D., H.E.I.C.S.—Founder of Fellowship in the Faculty of Medicine.

JOHN M'COSH, M.D.—Founder of "The M'Cosh Graduate's Bursary" in Medicine.

Miss JANE MARIA M'MASTER—Founder of M'Cosh Medical Bursary.

J. M. HOULDSWORTH, Esq. of Ayr, and other Trustees—Founders of "The Houldsworth Scholarship for Research in Pharmacology."

(C.)—*Founders of New Chairs, Contributors of Endowments to existing Chairs, or of Money, &c., to the University Funds, Library, &c., within the present Century.*

General JOHN REID—Founder of the Theory of Music Chair, who also bequeathed money to the Funds of the University.

General Sir JOSEPH STRATON—Bequest to the University Funds.

Sir JAMES ERSKINE, of Torry, bequeathed Pictures, Bronzes, and Marbles to the University. [Lent to the National Gallery.]

Sir WILLIAM PULTENEY—Founder of the Chair of Agriculture.

Dr WILLIAM THOMSON—Founder of the Thomsonian Lectureship in Mineralogy.

Sir GEORGE BALLINGALL, Professor of Military Surgery—Presented his Library to the University.

Dr W. P. ALISON, Professor of the Theory of Medicine—Presented his Medical Books to the University.

JOHN MUIR, D.C.L., LL.D., Edinburgh—Founder of Sanskrit Chair.

Sir DAVID BAXTER, Bart., of Kilmaron—Founder of the Chair of Engineering.

DAVID COWAN, Esq., of Auchendrane, bequeathed £1000 to the Association for Promoting the Endowment of the University.

Sir RODERICK IMPEY MURCHISON gave £6000 for the Endowment of the Chair of Geology.

J. O. HALLIWELL PHILLIPPS, Esq., presented his valuable Shakespearean Collection to the University.

ROBERT COX, Esq., W.S., bequeathed £5000 for general purposes and for completing the Dome of the University buildings.

Signor THEOPHILE BUCHER bequeathed his Music Library to the Chair of Music, and reversion of estate to found Scholarships in Music.

THE MERCHANT COMPANY OF EDINBURGH, and other Governors of George Watson's and Daniel Stewart's Hospitals—Founders of the Chair of Political Economy and Commercial Law.

Mr HENRY G. and Miss FRANCES WATSON—Donors of Fund for the "Watson-Gordon Professorship of Fine Art." The Deed of Foundation will be found in CALENDAR for 1873-74, p. 320.

Sir D. BAXTER, of Kilmaron, bequeathed £20,000 for the Extension of the University buildings, and £20,000 for the Further Endowment of the Chairs in the Faculty of Arts.

Miss BROWN, of Lanfine, presented a portion of the Minerals and Fossils which belonged to her father—to be called "The Waterhaugh Collection."

THE BELL TRUSTEES, who gave £6000 for the Endowment of the Bell Chair of the Theory, History, and Practice of Education. (Endowment increased in 1886 by £4500, added by Educational Endowments Commission.)

JOHN B. BAILLIE, who transferred the collection of Arabic MSS., formed by Lieut.-Col. Baillie of Leys, to the University Library.

Dr DAVID LAING, bequeathed his MSS. to the University Library.

Mrs HODGSON, presented Works on Political Economy, collected by her late husband, Prof. Hodgson, to the University Library.

Dr VANS DUNLOP bequeathed £3000 to the General Fund of the University.

SUBSCRIBERS to the CELTIC CHAIR, by whom a fund of £14,000 was raised for the endowment of this Chair by the exertions of Professor Blackie.

Miss MARY DICK bequeathed a moiety of the residue of her estate to accumulate for twenty-one years from 1883, or till it shall amount to £10,000, for the Foundation of a Chair of Comparative or Surgical Anatomy, as considered most to be required.

SUBSCRIBERS of £500 and upwards to the "UNIVERSITY OF EDINBURGH BUILDINGS EXTENSION SCHEME":—[1]

Sir David Baxter of Kilmaron, Bart., by bequest, less Legacy Duty,	£18,000	0	0
William M'Ewan, Esq., LL.D., M.P.,	6,500	0	0
The Duke of Buccleuch and Queensberry, K.G., D.C.L., LL.D.,	4,000	0	0
The Magistrates and Council of the City of Edinburgh,	3,100	0	0
The Right Hon. the Earl of Moray,	2,525	0	0
The Right Hon. The Earl of Rosebery, LL.D.,	2,400	0	0
The Royal College of Physicians of Edinburgh,	1,575	0	0
The Right Hon. the Earl of Stair, K.T.,	1,500	0	0
Messrs John Jeffrey & Co.,	1,500	0	0
J. Fulton, Esq., Clinton Road,	1,150	0	0
Charles Andrew Aitchison, Esq., Queen Street,	1,050	0	0
The Most Hon. the Marquis of Bute,	1,000	0	0
Andrew Carnegie, Esq., New York and Pittsburg,	1,000	0	0
The Right Hon. the Earl of Derby,	1,000	0	0
J. R. Findlay, Esq., Rothesay Terrace,	1,000	0	0
The Right Hon. The Earl of Home,	1,000	0	0
The Right Hon. The Earl of Hopetoun,	1,000	0	0
Sir William Stirling-Maxwell of Pollok and Keir, Bart., LL.D., M.P.,	1,000	0	0
The Rt. Hon. The Earl of Wemyss and March, LL.D.,	1,000	0	0
The Right Hon. the Lord Justice-General Inglis, D.C.L., LL.D., Chancellor of the University,	800	0	0
Messrs Thomas Nelson & Sons,	800	0	0
Henry George Watson, Esq., C.A.,	800	0	0
The Most Hon. the Marquis of Lothian,	750	0	0
The Society of Writers to the Signet,	750	0	0
J. Lindsay Bennet, Esq., Taviton Street, London,	710	0	0
James Cowan, Esq., Royal Terrace,	700	0	0
Robert Richardson, Esq., Bruntsfield Place,	700	0	0
C. Morrison, Esq. of Islay,	700	0	0

[1] See Statement of Funds in Calendar, 1889-90, Appendix, p. 22.

Charles Jenner, Esq.,	£650	0	0
David Anderson, Esq. of Moredun,	600	0	0
James H. Renton, Esq., Park Lane, London,	600	0	0
Professor Sir W. Turner, LL.D., D.C.L.,	600	0	0
His Grace The Duke of Devonshire	500	0	0
Charles Cowan, Esq., of Logan House,	500	0	0
T. R. Buchanan, Esq., M.P.,	500	0	0
P. D. Swan, Esq., Provost of Kirkcaldy,	500	0	0
Lady Campbell of Garscube,	500	0	0
The late William Cumming, Esq., M.D., Ainslie Place,	500	0	0
The late James T. Gibson-Craig, Esq., York Place,	500	0	0
Professor Crum Brown,	500	0	0
The Goldsmiths' Company of London,	500	0	0
Sir W. Mackinnon, Esq., of Balinakill and Loup,	500	0	0
Graham Menzies, Esq. of Hallyburton,	500	0	0
John Graham Menzies, Esq., Grosvenor Crescent,	500	0	0
W. D. Menzies, Esq., Grosvenor Crescent,	500	0	0
Miss Trail, Aberlady,	500	0	0
Messrs William Younger & Co., Abbey Brewery,	500	0	0
The Right Hon. The Earl of Zetland,	500	0	0
Anonymous,	500	0	0

The total amount of subscriptions received was £149,048, 2s. 5d.

EARL OF ROSEBERY provided £50 a year for Lectureship on Philosophy of Natural History for five years.

WILLIAM F. CUMMING, M.D., presented a Drinking Fountain, erected in the Quadrangle of the Old Buildings, in 1886.

JOHN HOPE, W.S., presented a Drinking Fountain to the University New Buildings, 1886.

ALEX. GIBSON, Esq., Advocate, bequeathed £2000, free of legacy-duty, to the General Fund of the University.

WILLIAM M'EWAN, Esq., LL.D., M.P., donor of the M'Ewan Hall at a cost, including balance paid for Site and Grand Organ, of about £115,000.

ADAM GIFFORD, Senator of the College of Justice, bequeathed £25,000 for the foundation of a Lectureship for promoting, advancing, teaching, and diffusing the study of Natural Theology in the widest sense of that term.

JOHN FULTON, Esq., bequeathed £3000 to General University Fund, the greater part of which has been devoted to the equipment of the new Engineering Laboratory, called the "Fulton Laboratory."

Miss ELIZABETH STEVEN, of Bellahouston—Founder of the Steven Lectureship in connection with the Chair of Agriculture.

ALEXANDER LOW BRUCE, Esq., Edinburgh, £5000
Mrs A. L. BRUCE, £500
Miss A. BLACKWOOD BRUCE, £500
Other members of the Bruce family, £163
JOHN USHER, Esq., of Norton, £8000
WILLIAM YOUNGER & Co., £1000

} Founders of "the Bruce and John Usher Chair of Public Health" in the Faculties of Medicine and Science.

JAMES RITCHIE, Esq., bequeathed £3000 for University purposes.

HIGHLAND AND AGRICULTURAL SOCIETY, £971, 6s. 7d., and ROYAL SCOTTISH ARBORICULTURAL SOCIETY, £584, 3s. 10d., — for further Endowment of a Chair or Lectureship in Forestry.

Dr PHILIP NELSON, Annan, bequeathed £84, 12s. 3d., to University Building Fund.

Sir WILLIAM OVEREND PRIESTLEY, M.P., £1000 towards cost of redecorating the Library Hall.

THOMAS M'KIE, £100 towards improving Students' Reading Room.

BEQUESTS AND DONATIONS DURING 1897-98.

I. *Bequests.*

Bequest by the late Mr John Shepherd Taylor of Edderton, near Ross, of £4000 to endow "John Taylor Bursaries" in this University, to be competed for by natives of Thurso.

£4461, balance of Residue of the Estate of the late Charles Jardine, Esq., for further endowment of Jardine of Thorlieshope Bursaries.

Bequest by the late Miss Christiana Thow of Craigmore, near Dundee, of £3000, for three Scholarships in the Faculty of Law.

Bequest by the late John M'Cosh, M.D. (Edin.), sometime Surgeon to H.M. Bengal Army, of £5115 to endow the "M'Cosh Graduate's Bursary" in Medicine.

Bequest by the late Jane Maria M'Master, 9 Lauder Road, Edinburgh, of £375 for endowment of "M'Cosh Medical Bursary."

Bequest by the late Dr John Frederic M. Mouat of £1831 for the endowment of the "Mouat Scholarship in Practice of Physic."

Bequests by the late Sir William Fraser, K.C.B., LL.D.—

1. For foundation of Chair or Professorship to be called "The Sir William Fraser Professorship of Ancient History and Palæography," £25,000.
2. For Library purposes, £10,000.
3. Half of Residue of Estate for general purposes, but especially for foundation of Bursaries, &c., in connection with History, or for promoting Historical Research, expected to amount to about £15,000.

Bequests by the Hon. Bouverie Primrose, C.B.—1. For original Research, £100. 2. For Library, £100.

II. *Donations.*

The M'Ewan Hall, at a cost (including balance paid for Site and Grand Organ) of about £115,000, by William M'Ewan, Esq., LL.D., M.P.

£1700 by the Trustees for the Houldsworth Scholarship, now transferred to the University of Edinburgh, for Research in Pharmacology.

Contribution towards the Endowment of a Chair or Lectureship in Forestry from the Highland and Agricultural Society, £75.

£40 for Philosophy Honours Exhibition for 1898-99, and for 1899-1900, by an anonymous Donor.

Bust of Emeritus Professor Masson, by Mr P. M'Gillivray, A.R.S.A., presented by the Contributors to the Masson Memorial.

Gift by Miss Eleanor A. Ormerod, F.E.S., of a Collection of Entomological Diagrams prepared by her late sister.

Mounted specimens of Molluscan Radulæ for microscope, by Professor Gwatkin, D.D., Cambridge.

Donations towards Lectureship in Forestry—1. From Government, £100. 2. From Highland and Agricultural Society, £50.

Annual vote of £80 by the Edinburgh School of Rural Economy towards Lectureship of Agricultural Chemistry.

£50 from C. Junghenn, Rangoon, towards foundation of Chair of Forestry.

The subscribers of over £500 for the purpose of founding a Classical Library in memory of Professors Sellar and Goodhart.

The subscribers of £202, 15s. 8d. for the purpose of founding a Departmental Library in Philosophy.

Miss Carrick Moore has presented to the Geological Class Library, a set of the publications of the Palæontographical Society the property of her late father, John Carrick Moore, Esq., F.R.S., F.G.S., of Corsewall, Wigtownshire.

Donations to Library.

His Majesty Alexander I., King of Servia, presented an illuminated facsimile of the fine old 12th century Servian manuscript of the Gospels, usually known as the Miroslav Gospels.

The Widow of Dr Frederic John Mouat, carrying out her husband's wish, presented a valuable collection of books, mostly medical.

For two other collections, relating principally to India, the Library is indebted to Dr George Smith and Dr James Irving.

Mr James Mackenzie presented a number of books and pamphlets (some of them very rare) throwing light on Scottish Ecclesiastical History.

The Marquess of Lothian—The Blickling Homilies of the 10th century, ed., with a transl. and index of words, by the Rev. R. Morris.

The Marquess of Bute—The Arms of the Royal and Parliamentary Burghs of Scotland.

The Earl of Crawford—List of MSS., printed books, and examples of bookbinding, exhibited to American librarians at Haigh Hall.

Sir William Muir—Considerable additions to his collection.

Mrs William Morris—The History of Godefrey of Boloyne, the Well at the World's End, and Sidonia the Sorceress.

Professor Saintsbury—A short history of French literature, and the Flourishing of Romance and the Rise of Allegory.

Professor Crum Brown—On the cotton fibre, by Walter Crum.

Professor Rutherford—Graham Brown's Medical Diagnosis, 4th ed., and two copies Syllabus of Lectures on Physiology, &c.

Professor Wallace—Lectures and papers, 1885-1894.

Professor Prothero—The Autobiographies of Edward Gibbon.

Professor Butcher—Aristotle's theory of Poetry and Fine Art, with a critical text and transl. of the Poetics, 2nd ed.

Mr G. T. Carruthers—The ancient use of the Greek accents in reading and chanting.

Trustees of the Duff Missionary Lectureship—Lang's Expansion of the Christian Life.

Rev. Thomas Adamson—Studies of the mind in Christ.

Sir Frederick Bateman—The Idiot; his place in creation, &c., 2nd ed.

W. Walker Stephens—Life and writings of Turgot.

Dr Cargill Knott—Transactions and Proceedings of the London Japanese Society, 2 vols.; and An Elementary Text-book of Physics.

Emeritus Professor A. C. Fraser—The Philosophy of Theism. 2nd series. (Gifford Lectures.)

Colonel Raikes—Pedigree of the family of Raikes, formerly of Kingston-upon-Hull.

Professor Kirkpatrick—The Historic Episcopate in the Columban Church and in the Diocese of Moray, &c., by J. Archibald, and Fénelon's l'Architecture du Temple de Solomon.

The Adams Memorial Committee, Cambridge—Scientific Papers of John Couch Adams, ed. by W. G. Adams.

Mr A. Sinclair—Leabhar na Ceilidh: sgeulachdan ait agus dain aighearach, by "Fionn."

Rev. Dr Hoernle—Al mondo, by the Earl of Manchester.

Mr R. C. Winthrop, Jun.—A Memoir of Robert C. Winthrop.

Dr J. Taylor Brown—Manchester Presbyterian Classis, Vols. XXII. and XXIV.; Bury Presbyterian Classis, Vol. XXXVI.; Lancashire and Cheshire Ministers — Minutes of the Committee. Part ii.

Professor Tiele—Elements of the Science of Religion. (Gifford Lecture.)

Messrs Dent & Co.—The *Spectator*, ed. by G. Gregory Smith.

Dr Charles Douglas—John Stuart Mill's Ethics. Ed. with introductory essays.

Rev. Francis Bashforth—A mathematical treatise on the motion of projectiles; (2) Description of a chronograph; (3) Tables of remaining velocity, &c., of various projectiles.

Mr A. J. Spanton—The Spanton Family, with a short account of Spaunton.

Mr R. Maclehose—A sketch of William Murdoch, the inventor.

Dr J. G. Wallace-James—Charters and Writs concerning the royal burgh of Haddington, 1318-1543. Transcribed and translated.

Macmillan & Co.—S. L. Loney—An arithmetic for schools.

Lord Elphinstone—The Elphinstone Family Book of the Lords Elphinstone, Balmerino, and Coupar. 2 vols.

Mr J. Burleigh—John Bickerdyke—Her Wild Oats: a novel.

Colonel Young—Aridae Frondes, 1888-1898.

Rev. Professor Kennedy—G. J. Spurrell—Notes on the text of the Book of Genesis. 2nd edition.

Dr J. Burgess—An introduction to arithmetic (Calcutta, 1858); On the definite integral $\frac{2}{\sqrt{\pi}}\int_0^t \epsilon^{-t^2}dt$, with extended tables of values.

As well as a Collection of works relating to the Dutch Indies.

Mr C. E. Roney-Dougal—A. Nicholson—The Adoration of Christ: a vindication of the Catholic doctrine.

Rev. R. Borland—Border Raids and Reivers.

Mr R. Maclehose—William Murdoch—Light without a wick: a century of gas-lighting, 1792-1892.

ABSTRACT OF THE ACCOUNTS OF
The University of Edinburgh
FOR THE YEAR ENDING 31ST AUGUST 1897.

CAPITAL.

I. General University Fund :—							
Funds at beginning of year						£70,223	16 7
Added during year—							
Surplus of Revenue over Expenditure for year						2,234	13 7
						£72,458	10 2
Deduct cost of Property purchased						3,526	11 6
						£68,931	18 8
II. Funds partly or wholly unappropriated to particular purposes :—							
Funds at beginning of year			£128,345	17 4			
Added during year—							
Bequest by the late W. F. Rawdon, Esq., to the University Building Fund	£1,000	0 0					
Surplus of Revenue over Expenditure for year	102	2 9					
			1,102	2 9			
			£129,448	0 1			
Deduct Ritchie Fund now to be devoted to the foundation of Scholarships transferred to Section IV. below			2,937	12 0			
						126,510	8 1
III. Funds appropriated to particular purposes other than Bursaries, Scholarships, Fellowships, and Prizes :—							
Funds at beginning of year			£119,867	9 10			
Added during year—							
Further contribution from the Highland and Agricultural Society towards endowment of the Lectureship in Forestry	£75	0 0					
Carry forward,	£75	0 0	£119,867	9 10		£195,442	6 9

Brought forward,	£75	0	0	£119,867	9	10	£195,442	6	9		
Donations for the purpose of completing the endowment of the Chair of Public Health	10,163	0	0								
Surplus on Pension Fund .	2,175	0	7								
Surplus of Revenue over Expenditure . . .	129	10	8								
				12,542	11	3					
							132,410	1	1		

IV. Funds for Bursaries, Scholarships, Fellowships, and Prizes:—

Funds at beginning of year . . .				£333,506	1	3					
Added during year—											
Houldsworth Scholarship formerly held by Trustees in connection with the Westminster Hospital Medical School, now transferred to Trustees for behoof of the University of Edinburgh .	£1,709	0	4								
Balance of residue of the estate of the late Charles Jardine, Esq., for endowment of the Jardine of Thorlieshope Bursaries .	4,461	9	8								
Fund mortified by the late Dr Frederic John Mouat, for the foundation and endowment of a Scholarship in the Faculty of Medicine .	1,831	17	2								
Sum received from Dr Gunning, being unapplied interest on Bond for £5000 granted by him in favour of the University, for the institution of Medical Prizes, which are presently paid by Dr Gunning through his own Agents . . .	67	6	0								
Sum received from him in connection with a similar Bond for Divinity Prizes .	72	7	11								
Carry forward,	£8,142	1	1	£333,506	1	3	£327,852	7	10		

Brought forward,	£8,142	1	1	£333,506	1	3	£327,852	7	10
Additional payment on account of the Residue of the late Dr Pattison's estate .	8	0	3						
Fund transferred from Section II. above, now to be devoted to the foundation and endowment of two Scholarships for the study of Oriental Languages . .	2,937	12	0						
Surplus of Revenue over Expenditure for year . .	2,361	3	6						
				13,448	16	10			
							346,954	18	1

V. ESKBANK FEU-DUTIES—CASUALTY FUND.

Fund at beginning of year				£262	6	0			
Added during the year :—									
Surplus of Revenue over Expenditure for year				12	2	4			
							274	8	4
Total Funds at 31st August 1897 .				.	.		£675,081	14	3

NOTE.—The above Funds are stated at their book value or cost price. The market value of the Funds at the 31st August 1897 exceeded the book value by £48,464. 15s. 4d. No notice is taken above of the University Buildings, New Medical School, Music Class Room, and Principal's Official Residence, or of the Library, Museums, and Furnishings of the University, as the values of these are not known.

REVENUE AND EXPENDITURE.

I. GENERAL UNIVERSITY FUND.

Revenue.				Revenue.			Expenditure.
1. Matriculation Fees				£2,943	4	0	...
2. Entrance Fees from Students not matriculated				23	0	0	
3. Fees in lieu of Matriculation Fees . .				68	15	6	
4. Preliminary Examination Fees . . .				342	18	0	
5. Graduation Fees :—							
(1) Arts . . .	£718	15	0				
(2) Science . . .	276	1	6				
(3) Medicine . .	6,150	1	0				
(4) Divinity . . .	22	1	0				
(5) Law	83	9	6				
(6) Music	7	17	6				
				7,258	5	6	
Carry forward,				£10,636	3	0	£ ..

		Revenue.	Expenditure.
	Brought forward,	£10,636 3 0	£ ...
6.	Fees of Registration of Members of General Council	281 0 0	
7.	Fees of Access to Library	45 13 6	
8.	Income from Accumulations of the General University Fund	2,278 6 1	
9.	Income from Funds bequeathed for general purposes:—		
	(1) Straton Fund £444 11 6		
	(2) Cox Fund 69 7 10		
	(3) Gibson Fund 64 14 2		
		578 13 6	
10.	Income from Funds partly appropriated to particular purposes, the Surplus Income of which falls to general purposes:—		
	(1) Leith Harbour Annuity Fund £624 5 6		
	(2) Reid Fund 578 7 6		
		1,202 13 0	
11.	Income from Funds specifically appropriated by Deed of Endowment to Class Expenses:—		
	(1) Fund for Chair of Engineering £23 4 0		
	(2) Fund for Chair of Geology 45 10 10		
	(3) Fund for Chair of Fine Art 40 16 10		
	(4) Fund for Chair of Commercial and Political Economy 74 0 0		
	(5) Gilchrist Fund for purchase of apparatus 79 15 0		
		263 6 8	
12.	Income from Parliamentary Grant	25,870 0 0	
13.	Income from Endowment of Chairs in the Faculty of Divinity	252 8 2	
14.	Surplus on Fee Fund	3,338 14 8	
15.	Royalty from Publisher of University Calendar	100 0 0	
16.	Fees from Societies for Use of Rooms, &c.	32 9 6	
17.	Contribution by Mr Thomas M'Kie towards cost of repairing and decorating Students' Reading Room	100 0 0	
		£44,979 8 1	
	Carry forward,	£44,979 8 1	£ ...

		Revenue.	Expenditure.
	Brought forward,	£44,979 8 1	£ ...
Expenditure.			
1. Expenses of Administration :—			
(1) University Court	...		£831 3 2
(2) Senatus Academicus	...		1,709 6 10
(3) General Council	...		205 0 8
(4) Curators of Patronage	...		15 15 0
(5) Editing University Calendar . . .	...		50 0 0
(6) Students' Representative Council .	...		35 0 0
(7) Factor	...		867 1 7
(8) Law Agents	...		48 7 2
(9) Auditor	...		50 19 0
			£3,812 13 5
2. Salaries to Principal and Professors :—			
(1) Salary to Principal in accordance with Section III. of Ordinance No. 27 of the Scottish Universities Commissioners	£1,048 17 10		
(2) Salaries to Professors in accordance with Section VII., Subsection 1 (*b*), of said Ordinance .	4,309 2 8		
(3) Salaries to Professors in accordance with Section VII., Subsection 2, of said Ordinance . .	1,500 0 0		
(4) Salaries to Professors in accordance with Sections IX. and XI., Subsection 2 (*d*), of said Ordinance . . .	3,542 0 0		
(5) Salaries to Professors in the Faculty of Divinity in accordance with Section XI., Sub-section 2, (*e*) of said Ordinance .	452 8 2		
			10,852 8 8
3. Provision for Pensions to Retired Professors .			5,000 0 0
4. Upkeep of Buildings :—			
(1) Buildings and Furnishings	£2,219 11 2		
(2) Lighting, Heating, and Cleaning . . .	1,217 4 10		
Carry forward,	£3,436 16 0	£44,979 8 1	£19,665 2 1

		Revenue.	Expenditure.
	Brought forward,	£3,436 16 0	£44,979 8 1	£19,665 2 1
(3)	Public Burdens and Feu-Duties	£476 16 1		
(4)	Insurance	215 1 2		
				4,128 13 3
5.	Equipment and Upkeep of Library			2,617 4 9
6.	Equipment and Upkeep of Museums			415 0 0
7.	Equipment and Upkeep of Laboratories, including Class Expenses			2,740 9 2
8.	Lecturers and Assistants			9,009 9 3
9.	Examiners			2,508 4 7
10.	Service			1,126 4 0
11.	Class Medals and Prizes			294 16 8
12.	Graduation Expenses			214 0 9
13.	Incidental Expenses and Grants			25 10 0
		£44,979 8 1	£42,744 14 6
	Deduct Transfers to other Funds	10,809 2 8	10,809 2 8
	Carried to Abstract	£34,170 5 5	£31,935 11 10

II.—Fee Fund Account and Salaries Account:—

		Revenue.	Expenditure.
1.	Fee Fund Account	£25,027 5 6	£25,027 5 6
2.	Fees collected for Professors and Lecturers not falling into Fee Fund	420 0 0	420 0 0
3.	Salaries Account	9,565 18 1	9,565 18 1
		£35,013 3 7	£35,013 3 7
	Deduct Transfers to other Funds	3,338 14 8	3,338 14 8
	Carried to Abstract	£31,674 8 11	£31,674 8 11

III.—Funds Partly or Wholly Unappropriated to Particular Purposes:—

		Revenue.	Expenditure.
1.	Annuity under the Edinburgh Corporation Stock Act, 1894	£1,687 1 0	£1,687 1 0
2.	Reid Fund	1,581 14 2	1,581 14 2
3.	Reid Professorship of Music, Assistants, and Expenses Fund	520 0 0	420 9 0
4.	Straton Fund	444 11 6	444 11 6
5.	Cox Fund	69 7 10	69 7 10
6.	Gibson Fund	64 14 2	64 14 2
7.	University Building Fund	3 4 3	0 12 6
		£4,370 12 11	£4,268 10 2
	Deduct Transfers to other Funds	3,218 0 6	3,218 0 6
	Carried to Abstract	£1,152 12 5	£1,050 9 8

IV.—Funds appropriated to particular purposes other than Bursaries, Scholarships, Fellowships, and Prizes.

	Revenue.	Expenditure.
1. Baxter Salary Fund	£583 13 6	£583 13 6
2. Bell Chair of Education	361 12 0	361 12 0
3. Celtic Chair	513 16 9	513 14 9
4. Lectureship in Procedure and Evidence	100 0 0	100 0 0
5. Chair of Commercial and Political Economy	524 0 0	524 0 0
6. Chair of Engineering, viz. :—		
(1) Fund for Professor's Salary	193 6 8	193 6 8
(2) Fund for Expenses of the Chair	23 4 0	23 4 0
7. Chair or Lectureship on Forestry	222 17 4	223 17 10
8. Gilchrist Fund	79 15 0	79 15 0
9. Gifford Lectureship	743 7 4	743 7 4
10. Muir Chair of Sanskrit	217 11 10	217 11 10
11. Murchison Chair of Geology, viz. :—		
(1) Fund for Professor's Salary	181 0 6	181 0 6
(2) Fund for Expenses of the Chair	36 3 8	36 3 8
12. Nichol Foundation	48 7 8	41 19 9
13. Pulteney Chair of Agriculture	39 5 6	39 5 6
14. Chair of Public Health	141 7 6	17 6 3
15. Pension Fund	5,191 8 0	3,016 7 5
16. Steven Lectureship on Agriculture	94 5 0	94 5 0
17. Thomson Funds, viz. :—		
(1) Fund for Salary of Professor of Natural History.	37 9 0	37 9 0
(2) Fund for Expenses of Chair of Geology	9 7 2	9 7 2
18. Watson Gordon Professorship of Fine Art., viz. :—		
(1) Fund for Professor's Salary	426 9 4	426 9 4
(2) Fund for Expenses of the Chair	40 16 10	40 16 10
19. Lectures on Agricultural Chemistry	80 0 0	80 0 0
20. Chair of Conveyancing	105 0 0	105 0 0
	£9,994 4 7	£7,689 13 4
Deduct Transfers to other Funds	3,355 16 3	3,355 16 3
Carried to Abstract	£6,638 8 4	£4,333 17 1

V.—Funds for Bursaries, Scholarships, Fellowships, and Prizes.

	Revenue.	Expenditure.
1. Aitken Scholarship	£96 15 10	£48 7 10
2. Ardvorlich Bursary	15 9 4	15 9 4
Carry forward,	£112 5 2	£63 17 2

		Revenue.			Expenditure.		
	Brought forward,	£112	5	2	£63	17	2
3.	Neil Arnott Prize	40	12	0	40	12	0
4.	Neil Arnott Scholarship	34	11	2	34	11	2
5.	Baxter Mathematical and Philosophical Scholarships	123	1	2	123	11	10
6.	Baxter Natural and Physical Science Scholarships	147	15	6	183	18	5
7.	Misses Baxter of Balgavies Scholarships	158	8	4	42	17	10
8.	John Edward Baxter Scholarships, viz.:—						
	(1) Fund for Scholarships	251	1	10	251	2	0
	(2) Fund for Examiners' Fees	11	16	10	10	10	0
9.	Bruce of Grangehill and Falkland Bursaries and Scholarships	492	14	2	405	3	6
10.	Beaney Prize	33	16	8	...		
11.	Buchanan Scholarship	39	3	0	39	3	0
12.	Buchanan Bursary	22	1	6	22	1	6
13.	Bucher Scholarship	118	18	0	168	12	6
14.	Bayne Bursary	24	3	4	36	5	0
15.	Brown Bursaries	24	3	4	24	3	4
16.	Blair Arts Bursary	9	6	0	9	6	0
17.	Cairns Bursary	18	7	4	17	18	8
18.	Cameron Prize	88	7	4	8	8	0
19.	Dr John Aitken Carlyle's Medical Bursaries	54	2	8	54	2	8
20.	Cousin Prize	14	13	10	14	4	2
21.	Bailie Cousin Bursary	27	1	4	27	1	4
22.	Cobb Scholarship	31	8	4	39	16	4
23.	Crichton Bursaries, and Scholarships	1,028	9	0	355	7	0
24.	Drummond Scholarship, viz.:—						
	(1) Fund for Scholarship	95	14	0	50	13	10
	(2) Fund for Examiners' Fees	6	15	4	23	2	0
25.	William Dickson Travelling Fund	87	0	0	85	0	0
26.	Dundas Bursaries	42	11	4	41	0	10
27.	Dalgleish and Macmorran Bursary	13	8	4	13	8	4
28.	Edinburgh University Endowment Association's Arts Bursaries	120	0	0	90	0	0
29.	Ettles' Divinity Scholarships	105	17	0	43	13	8
30.	Ettles' Medical Scholarship	33	16	8	67	13	4
31.	Ellis Prize	29	1	0	...		
32.	Exhibition of 1851 Science Scholarships	25	0	0	25	0	0
33.	Falconer Memorial Fellowship, viz.:—						
	(1) Fund for Fellowship	110	4	0	110	4	0
	(2) Fund for Examiners' Fees	4	2	2	...		
34.	Fothringham and Forrest Bursaries	38	8	6	19	4	4
35.	James Fairbairn Scholarship	32	17	4	32	17	4
36.	Freeland Barbour Fellowship	48	6	8	96	13	4
	Carry forward,	£3,699	10	2	£2,671	4	5

	Revenue.	Expenditure.
Brought forward,	£3,699 10 2	£2,671 4 5
37. Fraser Bursaries	42 1 0	42 1 0
38. Donald Fraser Bursary	49 6 0	49 6 0
39. Ford Bursaries	32 4 6	32 4 6
40. Glover Divinity Scholarship	38 3 8	19 1 10
41. Gray Scholarships	83 5 2	62 8 10
42. Guthrie Fellowship	89 5 10	89 6 0
43. Grierson Bursaries	337 11 0	242 6 8
44. Gunning Scholarships	1 18 2	...
45. Gunning Medical Prizes	12 4 4	...
46. Gunning Divinity Prize	7 11 1	...
47. Goodsir Memorial Prize.	119 14 4	24 3 4
48. Hamilton Philosophical Fellowship, viz.:—		
(1) Fund for Fellowship	88 9 0	88 9 0
(2) Fund for Examiners' Fees	4 14 10	10 10 0
49. Harrison Bursary	32 2 10	27 12 1
50. Hope Prize	79 6 4	48 6 8
51. Robert Hunter Bursaries	35 13 7	...
52. Houldsworth Scholarship	22 4 8	21 2 7
53. Jardine Bursary	42 3 0	42 3 0
54. Jardine of Thorlieshope Bursaries	172 5 8	155 5 8
55. Johnston of Harthope Bursary	15 14 2	15 14 2
56. Jeffrey Scholarships	141 7 6	110 4 7
57. Robert Johnston Bursaries	54 12 4	33 7 0
58. Archibald Johnstone Bursary	12 13 6	12 13 6
59. David Kidd Divinity Scholarship	34 16 0	...
60. Kelland Memorial Prize	4 9 2	4 9 0
61. General Lang's Bequest	15 9 4	...
62. Lockerby Bursary	30 19 8	30 19 8
63. Lorimer Travelling Scholarship	38 13 4	...
64. Leckie Mactier Fellowship	77 6 8	77 6 8
65. Leighton and Struthers Bursary	22 12 2	...
66. Charles Maclaren Scholarship, viz.:—		
(1) Fund for Scholarship	108 5 4	108 5 4
(2) Fund for Examiners' Fees	7 14 8	...
67. Maxton Scholarship	40 19 8	40 19 8
68. Mackenzie Classical Scholarship	111 12 6	119 8 1
69. Macpherson Bursaries	82 5 10	39 0 10
70. Marshall Bursary	31 8 4	31 8 4
71. Mackenzie Bursaries in Anatomy	38 13 4	38 13 4
72. Mackinnon Bursaries	59 1 8	34 15 11
73. Mann Bursaries	77 6 8	25 15 8
74. Mackie Bursaries	58 0 0	58 0 0
75. Maclaurin Bursary	71 1 0	...
76. Maule Bursaries	82 13 0	81 4 0
Carry forward,	£6,207 11 0	£4,487 17 4

		Revenue.	Expenditure.
	Brought forward, .	£6,207 11 0	£4,487 17 4
77.	Milner Fothergill Prize . . .	9 13 4	...
78.	Muirhead Prize	15 14 2	14 10 0
79.	M'Lurg and Penman Bursary . .	19 13 2	15 9 4
80.	Miller Bursary	23 4 0	23 4 0
81.	Mitchell and Shortt Bursary . .	21 6 0	10 13 0
82.	Mackenzie (Stornoway) Bursary . .	26 2 0	26 2 0
83.	Moray Foundation	628 6 8	375 0 0
84.	Mouat Scholarship	18 14 0	260 11 0
85.	Newton Bursaries	84 3 8	105 5 5
86.	Nairne Bursary	16 2 4	16 2 4
87.	Prizes in Sanskrit	...	5 5 0
88.	Pitt Club Classical Scholarship . .	56 11 0	30 7 6
89.	Pitt Club Theological Scholarship .	104 2 2	104 2 0
90.	Patrick Bursaries	150 3 0	148 12 6
91.	Pattison Bursary	10 19 10	10 19 10
92.	Patterson Bursary	15 11 8	15 11 8
93.	Bailie John Penman Bursary . .	14 5 2	14 5 2
94.	Rev. John Penman High School Bursaries	8 4 10	...
95.	Pringle and Wardrop Bursary . .	16 12 6	...
96.	Rhind Scholarships	162 12 10	162 12 10
97.	Renton Bursary in Arts . . .	19 6 8	19 6 8
98.	Renton Bursary in Divinity . . .	19 6 8	...
99.	Ramsay Bursary in Arts . . .	10 14 10	10 14 10
100.	Ramsay Bursary in Divinity . .	16 2 4	...
101.	Ritchie Scholarships	78 17 8	...
102.	Horsliehill Scott Bursary . . .	64 8 0	70 14 0
103.	Shaw Philosophical Fellowship . .	135 2 0	135 1 10
104.	Steven of Bellahouston Scholarship .	72 10 0	76 14 0
105.	Syme Surgical Fellowship, viz. :—		
	(1) Fund for Fellowship . . .	83 2 5	...
	(2) Fund for Examiners' Fees . .	8 14 0	...
106.	Scott and Dunbar Prize . . .	27 8 4	27 0 8
107.	Dobbie Smith Prize	4 17 6	...
108.	Mackay Smith Scholarships, viz. :—		
	(1) Fund for Scholarships . . .	96 13 4	96 13 4
	2) Fund for Examiners' Fees . .	3 17 4	...
109.	Stark Scholarship	54 2 8	108 5 4
110.	James Scott Scholarship . . .	41 1 8	41 1 8
111.	Stewart Bursaries	34 16 0	26 2 0
112.	George Scott Scholarship . . .	31 8 4	18 6 6
113.	Tarsappie Bursary	5 0 6	...
114.	Trevelyan Scholarship . . .	30 3 2	22 12 6
115.	Trotter and Penman Bursary . .	12 9 6	12 9 6
116.	Vans Dunlop Scholarships . . .	2,317 8 11	1,995 0 4
	Carry forward,	£10,777 5 2	£8,486 14 1

	Revenue.	Expenditure.
Brought forward,	£10,777 5 2	£8,486 14 1
117. Wightman Prize	11 12 0	11 12 0
118. Robert Wilson Prize	8 0 7	7 13 0
119. Webster Bursaries	128 16 2	139 6 0
120. John Welsh Bursaries	195 19 0	152 16 8
121. Whitelaw Bursaries	68 17 6	68 17 6
122. King William III. Bursaries	50 0 0	25 0 0
123. Weir, Jenkins, Hepburn, and Lightbody Bursary	11 0 2	11 0 2
124. Wight, M'Call, and Christie Bursary	12 12 4	...
Carried to Abstract	£11,264 2 11	£8,902 19 5

VI. ESKBANK FEU-DUTIES—CASUALTY FUND.

	Revenue.	Expenditure.
Total amount of Feu-Duties and Expenditure therefrom	£488 18 6	£476 16 2
Deduct transfer to other Funds	461 1 2	461 1 2
Carried to Abstract	£27 17 4	£15 15 0

ABSTRACT OF REVENUE AND EXPENDITURE.

	Revenue.	Expenditure.
I. GENERAL UNIVERSITY FUND	£34,170 5 5	£31,935 11 10
II. FEE FUND ACCOUNT AND SALARIES ACCOUNT	31,674 8 11	31,674 8 11
III. FUNDS PARTLY OR WHOLLY UNAPPROPRIATED TO PARTICULAR PURPOSES	1,152 12 5	1,050 9 8
IV. FUNDS APPROPRIATED TO PARTICULAR PURPOSES OTHER THAN BURSARIES, SCHOLARSHIPS, FELLOWSHIPS, AND PRIZES	6,638 8 4	4,333 17 1
V. FUNDS FOR BURSARIES, SCHOLARSHIPS, FELLOWSHIPS, AND PRIZES	11,264 2 11	8,902 19 5
VI. ESKBANK FEU-DUTIES—CASUALTY FUND	27 17 4	15 15 0
	£84,927 15 4	£77,913 1 11
Add Cost of Property Purchased	...	3,526 11 6
TOTAL REVENUE AND EXPENDITURE,	£84,927 15 4	£81,439 13 5

The University Court.

ABSTRACT OF THE PROCEEDINGS OF THE UNIVERSITY COURT, FROM 1ST MAY 1897 to 1ST MAY 1898.

MONDAY, 17TH MAY 1897.—Before proceeding to the ordinary business of the Meeting, the Court resolved to present a loyal and dutiful Address to The Queen on the occasion of the sixtieth anniversary of Her Majesty's reign.

The Minutes of last meeting were submitted and approved.

On the recommendation of the Professor of Botany, Mr J. H. Burrage, M.A., was appointed a University Assistant in Botany, for the current academical year.

Intimation was made of a bequest by the late Miss Christiana Thow of Craigmore, near Dundee, of £3000 for three Scholarships in the Faculty of Law.

It was reported that copies of Reports by Committees of the General Council of the University, as approved by the Council on 20th ult., had been received.

Intimation was made of a grant of £50 from the Highland and Agricultural Society towards the Lectureship of Forestry in the University for the year 1897.

A gift to the University by the Rev. Professor H. M. Gwatkin, D.D., Cambridge, of 196 mounted specimens of molluscan radulæ for the microscope was received with thanks to the donor.

The sanction of the Court was given to a special course of instruction in Practical Bacteriology by Dr Robert Muir, University Lecturer on Pathological Bacteriology. The fee was fixed as £3, 3s., with an entrance fee of 5s. for non-matriculated members of the class. Various Reports were submitted by the Finance Committee and approved. The Works Committee submitted their Report on expenditure on general repairs and jobbing work on the buildings for the past half-year.

MONDAY, 14TH JUNE 1897.—The Minutes of last meeting were submitted and approved.

An Address to The Queen was approved, and directed to be forwarded to the Secretary for Scotland for presentation to Her Majesty.

With reference to the death of Mr James Colston, which had occurred since last meeting, the Court resolved to express their appreciation of

the value of the services rendered by him to the University during a period of fourteen years—first, for three years as a Curator of Patronage, and afterwards as Assessor in the University Court, nominated by the Lord Provost, Magistrates and Town Council. In view of these services the Court agreed to record their sense of Mr Colston's unceasing interest in the welfare of the University, and of his devotion to the duties of the several Offices held by him.

It was reported that copies had been received of Orders of Her Majesty in Council, dated 18th ult., approving of the following Ordinances:—No. 151 (General No. 34—Regulations as to Resignation of Principals and Professors); No. 152 (General No. 35—Regulations as to Examinations, supplementary to Ordinances Nos. 13 and 43); No. 153 (General No. 36—Regulations as to Fees, supplementary to Ordinance No. 50); No. 154 (General No. 37—Regulations for the Degree of Bachelor of Divinity, supplementary to Ordinance No. 63); No. 155 (General No. 38—Regulations for Degrees in Science, supplementary to Ordinances Nos. 12, 22, and 134); No. 156 (Glasgow, Aberdeen and Edinburgh No. 3—Regulations for Degrees in Medicine, supplementary to Ordinances Nos. 14, 15, and 16).

The Finance Committee reported that the purchase from the Town Council had been effected of the ground at Park Place, which formerly belonged to the Trustees for behoof of the Jewish Congregation, Edinburgh; and inasmuch as the Disposition of the ground in favour of the University Court contained a conveyance by the University Court to the Town Council of the University's interest in a portion of ground, now thrown into the street, the Deed was sealed with the common seal of the Court.

A Report by the Senatus under Ordinance No. 11, section xxii., was submitted.

An application by Harvey Littlejohn, M.D., Edinburgh, for recognition as a teacher whose courses of instruction in Medical Jurisprudence and Public Health qualify for graduation, was granted.

The gift by Mr George Smith, LL.D., Edinburgh, of a series of Indian Administration Reports was accepted with thanks to the donor.

MONDAY, 12TH JULY 1897.—The Minutes of last Meeting were submitted and approved.

It was reported that Ordinance No. 160 (General No. 39—Regulations for Degrees in Arts, supplementary to Ordinances Nos. 11, 44, and 148) had been laid before both Houses of Parliament on 18th ult. It was also reported that the following Ordinances had been transmitted to the Secretary for Scotland for submission to Parliament:—No. 167 (General No. 40—Regulations for Higher Degrees in Arts and Science, supplementary to Ordinance No. 62); No. 168 (General No. 41—Regulations for Degrees in Arts, supplementary to Ordinances Nos.

11, 44, 148, and 160); No. 169 (Edinburgh No. 28—Foundation of Chair of Public Health).

Mr Andrew Mitchell took his seat as Assessor nominated by the Lord Provost, Magistrates and Town Council, in room of the late Mr Colston.

The University's representatives on the Joint Board of Examiners of the Scottish Universities for the year from 1st February next were appointed as follows:—1, Stewart A. Robertson, M.A. (English); 2, Professor Hardie (Classics); 3, Professor Chrystal (Mathematics and Dynamics); 4, Mr C. D. Campbell (Modern Languages).

Mr F. P. Walton, LL.B., tendered his resignation of the Office of Additional Examiner in Modern Languages, and of other Offices held by him in the University, on his appointment as Professor of Civil Law in the M'Gill University, Montreal. The Court accepted the resignation. The Court appointed Mr C. D. Campbell to be Additional Examiner in Modern Languages till the expiry of the period for which Mr Walton had been appointed—31st December 1899. The Court appointed Mr J. W. Brodie Innes, Barrister and Advocate, as Examiner in English Law.

The recommendations by the respective Professors as to the appointment of University Assistants for next academical year which had been received up to the date of meeting were approved, and such of them as are University Lecturers were continued in their Office as Lecturers for the same period.

Mr Mitchell was appointed a member of the Library Committee in room of the late Mr Colston.

The Recognition held by the Edinburgh School of Medicine for Women and by the Edinburgh Medical College for Women, for purposes connected with the medical education of women, was continued for next academical year.

The Court, after consultation with the Senatus, appointed Dr P. M'Bride, Edinburgh, to be University Lecturer on Diseases of the Larynx, Ear and Nose. Various reports submitted by the Finance and Works Committees were approved.

A report by the Senatus under Ordinance 11, section xxii., was submitted.

The Court agreed to accept the offer of a "Philosophy Honours Exhibition" of the value of £40, to be competed for next winter session. The conditions attached to the Exhibition are as follows:—"1. It shall be competed for by students who desire, during the session 1898-99, to prepare for the examination for Honours in Mental Philosophy, but who are unable to do so without this Exhibition. 2. It shall be awarded by the Professors of Logic and Metaphysics, and Moral Philosophy, after such examination as they think proper, to a candidate whom they consider fitted to qualify for the Degree of Master of Arts with Honours in Mental Philosophy. 3. It shall be held on condition that during his tenure the Exhibitioner attends no

classes and engages in no paid occupation except such as may be sanctioned by the above Professors, and that he undertakes to present himself for the Examination for Honours in Mental Philosophy, to be held in April 1899, unless permitted by the Professors to do otherwise."

A report of the Committee of Senatus on applications for participation in the Moray Endowment Fund for purposes of original research, &c., was submitted and approved.

A donation of £100 by Mr Thomas M'Kie, Advocate, to the General University Fund, to be applied towards cost of improving the Students' Reading Room, was accepted with thanks to the donor.

It was intimated that the University Endowment Association had instituted two Arts Bursaries of £20 a year each, tenable for three years, for competition in October next.

MONDAY, 25TH OCTOBER 1897.—It was reported that the meeting had been postponed from the 18th to the 25th October under Standing Order 47.

It was reported that the Address by the Court and Senatus to The Queen had been presented by deputation at Balmoral on 7th inst. ; and Her Majesty's gracious reply was read.

There was laid before the Court copy of an Act for transferring the right of presentation to the Professorships of Botany and Natural History in the University of Edinburgh, which had received the Royal Assent on 3rd June last. The Act provides as follows :—"From and after the passing of this Act the right of presentation to the Professorship of Natural History in the University of Edinburgh, presently exercised by Her Majesty, her heirs and successors, in right of her Crown, shall be transferred to, and in all time coming be exercised by, the Curators of the said University, appointed under the provisions of section xiii. of the Universities (Scotland) Act, 1858 ; and the right of presentation to the Professorship of Botany in the said University, presently exercised by the said Curators, shall be transferred to, and in all time coming be exercised by Her Majesty, her heirs and successors, in right of her Crown."

The members on the Library and Museum Committees, appointed by the Court under Ordinance No. 8, were reappointed for the current academical year ; an appointment to the vacancy in the Library Committee, created by the resignation of Mr F. P. Walton, being postponed.

The Court approved of the recommendations of certain Professors as to the appointment of University Assistants for the current academical year, and appointed as University Lecturers for the same period such of these Assistants as hold both Offices.

Dr A. P. Aitken was reappointed University Lecturer on Agricultural Chemistry for the current academical year.

Mr G. W. Burnet, M.A., B.L., was reappointed University Lecturer

on International Private Law for three years as from 1st January next.

Professor Ernest Gardner, University College, London, was appointed Additional Examiner in Classical Archæology for the year from 1st January next.

The Finance Committee's report on Lectureships, Assistants and Class expenses for the current academical year was submitted and approved. Various other reports by the Finance Committee were submitted and approved.

Reports of the Senatus under Ordinance 11, section xxii., and Ordinance 12, section x., were submitted.

A recommendation by the Senatus having been submitted, the Court sanctioned the institution of a winter course of lectures on Forensic Medicine by Professor Sir H. D. Littlejohn, on the understanding that it should be optional to law students to take this course or the summer course, and that the winter course shall not qualify for Medical Graduation.

The Court sanctioned leave of absence to Professor Copeland from 10th December to 23rd February next, to enable him, on the invitation of the Royal Society and the Royal Astronomical Society, to take part, along with representatives from other Universities and learned bodies, in observing the solar eclipse of 22nd January next in India. The Court also agreed to a proposal made by the Senatus as to the arrangements for the conduct of the class of Astronomy entailed by the absence of the Professor.

An application for the recognition of the Lecturers on Chemistry and Physics in the Central Technical College of the City and Guilds of London Institute, for purposes of Graduation in Medicine, was granted.

The Court granted recognition to Dr A. Lockhart Gillespie, Edinburgh, as an extra academical Lecturer, whose courses of instruction in Materia Medica shall qualify for Graduation in Medicine.

Monday, 15th November 1897.—The Minutes of last Meeting were submitted and approved.

The Members of the Standing Committees were reappointed for the current academical year, and Mr Andrew Mitchell was added to the Business and Law Committee. Mr John A. Trail, W.S., was appointed a member of the Library Committee.

It was reported that the General Council had re-elected Mr J. Hope Finlay, W.S., and Mr Alexander Taylor Innes, Advocate, as two of their Assessors in the University Court for another term of four years. The following Additional Examiners were reappointed:—1, Mr A. A. Macdonell, M.A. (Sanscrit); 2, Mr John Downie, M.A. (History); 3, Mr W. E. Plummer, M.A. (Astronomy); 4, Mr John Horne, (Geology); 5, Sir A. C. Mackenzie, Mus. Doc. (Music); 6, Mr John Row-Fogo (Political Economy); 7, Miss E. A. Ormerod, F.E.S. (Agricultural Entomology); 8, Mr D. M. Westland, C.E. (Engin-

eering.) Mr W. L. Carrie, M.A., was appointed Examiner for the Schoolmaster's Diploma, during his term of office as an Additional Examiner in Education for the Degree of M.A. The appointment of an Additional Examiner in (1) Medicine, in its bearings on Public Health, and (2) Physics, for Medicine and Public Health, was remitted to a committee with instructions to advertise, and to report. It was agreed to advertise the vacancy as from 1st February next in the Additional Examinership in Mathematics and Natural Philosophy. The appointment to the vacant Additional Examinership in Veterinary Hygiene was remitted to a committee for consideration and report.

A letter from the University Buildings Extension Trustees was read, intimating that the ceremony of opening the M'Ewan Hall and transferring the same to the University Court would take place on Friday, 3rd proximo, at 3.30 P.M.

On the recommendation of the Business and Law Committee, certain alterations suggested by the Students' Representative Council on the Constitution of the Council were approved.

The Court, having considered a proposal to obtain penal and disciplinary powers over graduates so as to empower a University to remove from its roll of graduates any graduate who may have been found guilty of a criminal offence or other misconduct, agreed to intimate to the other University Courts that this Court, while remaining of opinion that the difficulties of the proposal are very great, is willing to confer with the other Universities on the whole matter, and with that view to appoint representatives to a joint committee which should report to the various Courts.

On the recommendation of the Senatus, Mr A. Forbes Watson, B.Sc., was appointed to give a course of instruction (lectures and practical) in Fermentation; the fee for the course to be £3, 3s., with an entrance fee of 5s. in lieu of Matriculation.

It was agreed to place the Class of Diseases of the Larynx, Ear and Nose, under the 5s. entrance fee regulation.

The Class Returns for 1896-97 were remitted to a committee.

Various Reports of the Finance and Works Committees were submitted and approved.

MONDAY, 13TH DECEMBER 1897.—The Minutes of last meeting were submitted and approved.

It was intimated that a vacancy had occurred in the Chair of Moral Philosophy through the death on 19th ult. of Professor Calderwood. In connection with the lamented death of the Professor, the Court resolved to record in their Minutes their sense of the valuable services rendered by him to the University and to the University Court.

The Disposition by the University Buildings Extension Trustees in favour of the University Court, of the M'Ewan Hall, was submitted. It was remitted to a committee to consider and report as to arrangements for admission to the Hall.

The Report as to Statistics for 1896-97 to the Secretary for Scotland under section 30 of the Universities (Scotland) Act, 1889, was submitted and approved.

Reports by the Senatus under Ordinance No. 11, Sections xiii. (1) and xxii., were submitted.

The arrangements proposed by the Senatus for conducting the Class of Moral Philosophy during the vacancy in the Professorship were approved.

It was reported that the Senatus had re-elected Professor Sir William Turner to be one of their Assessors in the University Court for another term of four years.

The Court approved of a recommendation of the Senatus that Mr D. P. Heatley give a course of fifty lectures on Modern History, suitable for students who intend to become candidates for the India Civil Service; and fixed the class fee at £2, 2s. for the full course, and £1, 1s. for the half course.

The Court approved of a recommendation of the Senatus, that, in order to meet the convenience of students, there should be a winter course of instruction in Ophthalmology in addition to the summer course.

Dr J. O. Affleck was appointed to adjudicate on a Thesis for the Degree of D.Sc. in Public Health.

Applications by Drs R. A. Fleming and J. W. Ballantyne, Edinburgh, for recognition of their courses of instruction as extra-academical lecturers in Medicine and Midwifery respectively, for purposes of Medical Graduation, were granted.

On the recommendation of the Senatus, the Public Health Laboratory of the University of Cambridge was recognised for purposes of Graduation in Science in Public Health.

The Court approved of grants from the Moray Endowment Fund to—1, Mr J. W. Tullo, in connection with investigations in the Chemistry and Biology of Fermentation; 2, Dr John Beard, to enable him to complete a comprehensive monograph on the developmental history of fishes from early to very late stages; and 3, Dr John Malcolm, in connection with investigations in the Chemistry of the Nucleins in Leucocythemia.

The Court approved of an additional short course of twenty meetings in German prose composition in connection with both the ordinary graduation class and the honours class in German; and fixed the class fee for each of these courses at £1, 1s., with an entrance fee of 5s., in addition to the class fee, for non-matriculated students.

Intimation was made of a further gift by the Rev. Professor H. M. Gwatkin, D.D., Cambridge, of 198 mounted specimens of molluscan radulæ for the microscope, to be added to the former series presented by him to the University. The gift was received with thanks to the donor.

Various reports by the Finance Committee were submitted and approved.

MONDAY, 17TH JANUARY 1898.—The Minutes of last meeting were submitted and approved.

The following Minute relative to the death of Professor Calderwood was approved:—"The University Court desire to place on record their sense of the profound loss they have sustained in the death of their colleague Professor Calderwood. During a period of twenty-nine years, in which he held the Chair of Moral Phlosophy, he rendered devoted service to the University of Edinburgh. The successive generations of students who have passed under him have felt his impress, not merely as a powerful teacher and clear thinker, but as a man of high and disinterested purpose, to whom their welfare was his first concern. His efforts on behalf of the University education of women will long be remembered with gratitude by those who have reaped the fruit of these exertions. As a public-spirited citizen he has done much to strengthen the ties which bind the City to the University. But it is above all as a colleague that the University Court have to deplore his loss. His strong convictions and independent judgment were combined with a gentleness, a courtesy, and a largeness of view which made him trusted as a counsellor and beloved as a friend."

The Rev. John M. Robertson, M.A., Minister of the Parish of St Ninians, was appointed a Governor of Stirling Educational Trust, in room of the late Rev. Dr M'Laren, Larbert, for the remainder of the period of five years, for which the latter had been appointed.

It was agreed to appoint Lord Stormonth Darling, Sir William Turner, and Dr Heron Watson as the Court's representatives on the joint-committee of the Scottish Universities to consider the question of acquiring penal and disciplinary powers over graduates guilty of a criminal or other offence.

Mr R. Rutherford, F.R.C.V.S., Edinburgh, was appointed Additional Examiner in Veterinary Hygiene.

Dr Alex. Gordon Miller, Edinburgh, was appointed an Additional Examiner in Clinical Surgery for a period of two years from 1st inst.

Intimation was made of a donation of £1000 by Sir William Overend Priestley, M.P. for the Universities of St Andrews and Edinburgh, towards the cost of redecorating the Library Hall. The gift was gratefully accepted.

The Report on the State of the Finances for 1896-97 to the Secretary for Scotland, under section 30 of "The Universities (Scotland) Act, 1889," was submitted and approved. The Finance Committee's Report on the University Accounts for the financial year 1896-97, and estimates for 1897-98, was submitted and approved. Various other reports by the same Committee were submitted and approved.

A report of the Works Committee was approved, recommending the appointment of a caretaker for the M'Ewan Hall, whose duty it would also be to admit persons who desire to see the interior of the Hall; and that a small charge should be made for admission. The recom-

mendations of the Committee as to the terms on which the M'Ewan Hall may be had for concerts of a high class were also approved.

MONDAY, 14TH FEBRUARY 1898.—The Minutes of last meeting were submitted and approved.

The University Court being informed of the recent Minute of the Senatus Academicus acknowledging the distinguished services of Dr Rowand Anderson as Architect of the new University Buildings and of the M'Ewan Hall, desired to express its entire concurrence in that Minute, and to associate itself with the Senatus in conveying to Dr Anderson the thanks of the University.

Lord Stormonth Darling and Professor Butcher were re-elected to represent the University Court on the University Field Committee for the year from 16th prox.

Dr John Wyllie, Edinburgh, was appointed Additional Examiner in Medicine in its bearings on Public Health for one year from 1st ult.

A letter was read from the donor of the Philosophy Honours Exhibition, which had been competed for in the course of the current session, intimating his desire to renew the Exhibition (of the value of £40) to be competed for next winter session. The conditions attached to the Exhibition are as follows:—(1) It shall be competed for by students who desire, during the session 1899-1900, to prepare for the examination for Honours in Mental Philosophy, but who are unable to do so without this Exhibition; (2) It shall be awarded by the Professors of Logic and Metaphysics and Moral Philosophy, after such examination as they think proper, to a candidate whom they consider fitted to qualify for the Degree of Master of Arts with Honours in Mental Philosophy; (3) It shall be held on condition that during his tenure the Exhibitioner attends no classes and engages in no paid occupation, except such as may be sanctioned by the above Professors, and that he undertake to present himself for the examination for Honours in Mental Philosophy, to be held in the spring of 1900, unless permitted by the Professors to do otherwise. The offer was accepted with thanks to the donor.

The recognition of Drs Harvey Littlejohn and W. G. Aitchison Robertson, as teachers whose courses of instruction in Medical Jurisprudence and Public Health qualify for graduation, was continued until such time as the separate Chair of Public Health may be instituted and filled up. In the event of the Chair of Public Health being established prior to the beginning of next summer session their recognition was continued in Medical Jurisprudence and in Public Health, respectively.

The Senatus reported that they had appointed Professor S. S. Laurie, LL.D., as one of their Assessors in the University Court for the remainder of the late Professor Calderwood's term of office. Professor Laurie accordingly took his seat as a member of the Court.

A report by the Senatus under Ordinance 11, Section xiii. (1) was submitted.

It was agreed, on the recommendation of the Senatus, to institute a

Tutorship in Clinical Gynecology for the ensuing summer session, and to appoint the University Assistant in Midwifery to the Office.

A recommendation of the Senatus that Dr J. W. Ballantyne should be permitted to give within the University a course of six lectures on Teratology and Ante-natal Disease was approved.

Mr A. E. Mettam, Professor of Anatomy, Royal Veterinary College, Edinburgh, and Mr David Sharp, M.A., F.R.S., Cambridge, were appointed Additional Examiners for the examination of Theses for the Degree of D.Sc.

Reports by the Library Committee and the Librarian were submitted.

It was intimated that H.M. the King of Servia had presented to the University a copy of a facsimile edition of an old Servian MS.; and that on receipt the Principal had conveyed to His Majesty the respectful thanks of the University Court.

Various Reports of the Finance and Works Committees were submitted and approved.

MONDAY, 14TH MARCH 1898.—The Minutes of last Meeting were submitted and approved.

Principal Sir William Muir was reappointed a Governor of the Trust for Education in the Highlands and Islands for a period of five years, as from 1st August next, when his present term of office expires.

It having been intimated that the term of office of the present Additional Examiner in Classics expires 30th September next, it was agreed to advertise the appointment.

Mr James Goodwillie, M.A., B.Sc., Fellow of Corpus Christi College, Cambridge, was appointed Additional Examiner in Mathematics and Natural Philosophy; and in Physics for purposes of Graduation in Medicine and Public Health.

The report by the Joint Committee of the Scottish Universities, appointed to consider the question of penal and disciplinary powers over Graduates, was given in and approved.

The Court approved of the following regulations for the M'Cosh Graduate's Bursary and the M'Cosh Medical Bursary:—1. Each bursary shall be tenable for one year, during which the holder shall be required to prosecute study or research in a medical school or medical schools of Europe, it being in the discretion of the Faculty of Medicine to award both bursaries to the same person. 2. Appointment to the bursaries shall be made under recommendation of the Faculty of Medicine, and application shall be made to the Dean of the Faculty of Medicine not later than the end of the third week of July, and shall be accompanied with a statement of the name or names of the medical schools intended to be visited, of the time proposed to be spent at each school, and of the nature of the study or special work proposed to be engaged in. 3. Bachelors of Medicine and Bachelors of Surgery shall be eligible for appointment during one year after receiving these degrees. 4. In considering the claims of candidates,

the Faculty of Medicine shall take into account not only their professional attainments and ability, but also the knowledge they possess of foreign languages; and it shall be in the option of the Faculty to satisfy themselves with regard to this knowledge by the examination of candidates. 5. Candidates shall not be disqualified because they already hold a bursary, scholarship, or fellowship, except in the cases where the bursary, scholarship, or fellowship requires as a condition of tenure the prosecution of original research, or some other condition which may be interfered with by the holding of a M'Cosh Bursary. 6. Holders of the bursaries shall be required at the end of each three months to transmit to the Dean of the Faculty of Medicine a report of the manner in which they are pursuing their studies, or of the progress being made in any special work in which they are engaged.

Mr D. P. Heatley was appointed Assistant in History for next academical year.

Various reports of the Finance and Works Committees were submitted and approved.

Monday, 18th April 1898.—The Minutes of last Meeting were submitted and approved.

The Court approved of the following resolution of the Joint Board of Examiners of 22nd January last:—"That the Joint Board of the Scottish Universities issue after each examination a set of the papers of such examination, with any remarks which the various Committees may think desirable, subject to the approval of the Courts of the four Scottish Universities."

There was laid before the Court an application by Professor A. H. Charteris, D.D., for permission to retire from the Chair of Biblical Criticism, which he had held since 1868. The Court, in granting the application, resolved to enter in their Minutes an expression of their great regret at the severance of so long and honourable a connection with the University. It was agreed that the resignation should take effect as from 16th May next.

Intimation was made of bequests to the University by the late Honourable Bouverie F. Primrose, C.B., Edinburgh, of £100 for the encouragement of Original Research, and £100 for behoof of the Library.

The period of office of Mr J. C. Smith, M.A., as Additional Examiner in Classics, was extended to 31st December next.

Receipt was intimated of £100, being Government grant towards the Lectureship in Forestry; and of £80 from the Edinburgh School of Rural Economy towards the Lectureship in Agricultural Chemistry.

A Report of the Committee of Senatus on applications for grants from the Earl of Moray Endowment Fund, for the purposes of Original Research, was submitted and approved.

Grants awarded by the Senatus from the Dickson Travelling Fund were reported and approved.

There was remitted to a committee for consideration and report copy of the Trust Disposition and Deed of Directions by the late Sir William Fraser, K.C.B., LL.D., bequeathing to the University—(1) £25,000 for foundation of a Chair to be called "The Sir William Fraser Professorship of Ancient History and Palæography;" (2) £10,000 for Library purposes; and (3) half of residue of estate for general purposes, but especially for foundation of bursaries, &c., in connection with History, or for promoting Historical Research.

On the recommendation of the Senatus, it was agreed that there should be an autumn examination for the Schoolmaster's Diploma in addition to the spring examination.

Applications for the use of the Music Class-room were granted:—1, For meetings of the British Medical Association (Life Assurance Section) in July next; and 2, for meetings of the Convention of Teachers of Music in September next.

An application by the Magistrates and Town Council for the use of the M'Ewan Hall on 15th June next, the date on which the Council have agreed to confer the Freedom of the City on Lords Wolseley and Lister, was granted.

The gift of "The Elphinstone Family Book," in terms of instructions from Lord Elphinstone to the late Sir William Fraser, was received with thanks to the donor.

An abstract of the accounts of the University Athletic Club for the year to 30th September last was submitted.

Miscellaneous.

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I. Examinations for Candidates for the Army.—1. All who have passed the Examinations for the degree of M.A. are eligible for Commissions in the Army, and will be allowed two years' extension of the ordinary limit of age.

2. Those Students who have not passed the Examinations for the degree of M.A. may receive Certificates qualifying them for Commissions in the Army (provided they be not more than 21 years of age) on having attended one class in each of the following three Departments—viz., (*a*) either one Greek or one Latin class; (*b*) either Logic, Moral Philosophy, or Rhetoric and English Literature; (*c*) either Mathematics or Natural Philosophy,—and on passing the Examinations in the M.A. standard, in either Spring or Autumn, in the three subjects in which the Candidate has attended classes.[1] This Examination is called "The Examination for Candidates for the Army."

Candidates for the Certificate are not required to pass the Preliminary Examination, but unless the Candidate has passed the Preliminary Examination, the Certificate will not qualify for Graduation in Arts.

The names of intending Candidates for Certificates must be given in and Fees paid at the *Matriculation Office* at the same time as those of Candidates for the M.A. Examinations.

The Fee for the Examination is two guineas.

II. Subjects of Examination for Students of Divinity and Candidates for License by Presbytery of Edinburgh.

Examination mainly in writing. An average of not less than 50 per cent. over all the subjects is necessary. Examinations held in the Examination Hall of the University.

1. *For Students entering the Divinity Hall.*—(1) Biblical Knowledge.—Genesis to 2 Samuel, and the Four Gospels; (2) The Shorter Catechism.

2. *For Students entering on their Second Year.*—(1) Latin.—Augustine—Enchiridion; (2) Greek.—The Epistle to the Colossians as in Lightfoot; (3) Hebrew.—Davidson's Grammar, 1-31; Genesis, i.-ix; (4) Divinity. — Confession of Faith, 1-15; Flint's Theism; Row's Manual of Christian Evidences; (5) Biblical Knowledge.—1 Kings to Nehemiah, and Acts of the Apostles; (6) Church History.—History of the Church to 325 A.D.

[1] Subjects of Examination same as for Ordinary Degree of M.A.

3. *For Students entering on their Third Year.*—(1) Latin.—Anselm —Cur Deus Homo ; (2) Greek.—St John's Gospel to be read critically, with discussions as to date and authorship ; (3) Hebrew.—Davidson's Grammar, 32-49 ; Psalms i.-xv. ; (4) Divinity.—Confession of Faith, 16-33 ; The Trinity ; The Person of Christ ; (5) Biblical Knowledge. —The Psalms and Isaiah ; (6) Church History.—The Reformation Period, with special reference to Scotland.

4. *For Candidates for License.*—Scriptures of the Old and New Testaments, and History and Doctrine of the recognised Standards of the Church of Scotland.

J. LANGWILL, D.D., *Cl. Presb. Edin.*

III. THE EDINBURGH UNIVERSITY UNION. — *President* — H. Overton Hobson. *Hon. Secretary*—J. R. Hunter. *Treasurer*—W. A. Wood, C.A., 45 Queen Street. *Committee of Management.*—*Senatus* —Professors Butcher and Annandale. *General Council*—Dr Caird ; Dr Berry ; R. D. Melville, M.A., LL.B.; Dr Haultain. *Student Members*—D. B. King, M.A. ; Joseph Hunter ; A. M. Mackenzie ; J. Spencer Low, B.Sc. ; A. F. Black ; L. Crossley.

The Union is open to all Students and Graduates of the University, and its purpose is "the provision and maintenance of means of social and academic intercourse for its members." The Building, which includes a large hall (in which the debates are held), luncheon, smoking, reading-rooms, and billiard-room, is situated in Park Street, near both the old and the new buildings. The reading-room is amply supplied with newspapers, and with the weekly, monthly, and quarterly periodicals ; the billiard-room is furnished with two billiard tables, and the library contains University, Class, Text, and Reference Books.

Terms of Membership.—By payment of an entry-money of 5s. and an Annual Subscription of 10s. 6d. if a Matriculated Student, or £1, 1s. if a Graduate, University Assistant, or Lecturer.

Affiliated Societies.—E. U. Union English Public Schools Club ; University of Edinburgh Photographic Society.

The following University Societies and Associations, though not affiliated with the Union, have been granted certain privileges for the transaction of Business in the Union :—Students' Representative Council, Athletic Club, Conservative Association, Liberal Association, Chemical Society, Musical Society, and Darwinian Society.

Full particulars as to affiliation, &c., on application at the Union.

IV. STATISTICS OF THE RECTORIAL ELECTIONS, 1859-1896.

1859.—*Gladstone*, 642.—*Neaves*, 527. Matriculated students, 1302.
1862.—*Gladstone* (*unopposed*). Matriculated students, 1331.
1865.—*Carlyle*, 657.—*Disraeli*, 310. Matriculated students, 1288.
1868.—*Moncreiff*, 607.—*Ruskin*, 425. Matriculated students, 1398.
1871.—*Maxwell*, 594.—*R. Palmer*, 502. Matriculated students, 1533.

1874.—*Derby*, 770.—*Playfair*, 583. Matriculated students, 1767.
1877.—*Hartington*, 932.—*Cross*, 684. Matriculated students, 2102.
1880.—*Rosebery*, 1024.—*Christison*, 985. Matriculated students, 2496.
1883.—*Northcote—Blackie—Trevelyan*. Matriculated students, 2660.
1886.—*Iddesleigh*, 1094.—*Playfair*, 747. Matriculated students, 2680.
1887.—*Lothian* (*unopposed*). Matriculated students, 2493.
1890.—*Goschen*, 1378.—*Russell*, 805. Matriculated students, 3038.
1893.—*Robertson*, 1145.—*Reay*, 728. Matriculated students, 2649.
1896.—*Balfour*, 990.—*Haldane*, 771. Matriculated students, 2414.

V. ROYAL MEDICAL SOCIETY, EDINBURGH, 7 Melbourne Place. FOUNDED 1737. ROYAL CHARTER GRANTED 1778. *Presidents*—T. A. Ross, M.B., C.M.; H. S. Ballantyne, B.Sc., M.B., C.M.; G. L. Chiene, M.B., C.M.; E. E. Porritt, M.B., C.M. *Secretaries*—Alexander Goodall, John M. Bowie. *Treasurer*—J. R. Young, Esq. *Sub-Librarian*—A. P. Ormiston.

The Society meets in its hall every Friday evening during the Winter at 9 o'clock. At these meetings dissertations on medical subjects are read and debated, and communications by members on subjects of interest discussed. The Society possesses a very fine library, containing about 30,000 volumes, which is constantly being added to, the catalogue of which was brought up to date in 1896. There are comfortable writing and reading-rooms with all the medical journals and periodicals, books of reference and text-books specially useful to students reading for examinations. The museum contains a complete collection of Materia Medica specimens, microscopic sections, pathological preparations, herbarium, and a surgical model, on which bandaging, setting of fractures, &c., may be practised.

VI. INTERNATIONAL-ACADEMIC COMMITTEES. A Committee appointed by the Senatus [consisting of Professors Kirkpatrick (*Convener*), The Principal, Professors Chrystal, Eggeling, Sir L. J. Grant, Bart. (Secretary of Senatus), Herr Schlapp, Monsieur Sarolea], and the International-Academic Committee of the Students' Representative Council, will be happy to give every assistance in their power to Foreigners desirous of studying in the University of Edinburgh, and to Edinburgh University Students desirous of studying in foreign universities. Inquiries may be addressed to either of these Committees.

VII. ASSOCIATION FOR THE BETTER ENDOWMENT OF THE UNIVERSITY OF EDINBURGH. *President*—The Right Hon. Arthur James Balfour, D.C.L., LL.D., M.P., Chancellor of the University. *Vice-Presidents*—The Right Hon. The Earl of Wemyss, LL.D.; The Right Hon. The Earl of Stair, K.T.; The Right Hon. The Earl of Rosebery, K.G., K.T., LL.D.; Principal Sir William Muir, K.C.S.I., D.C.L., LL.D.

Ordinary Members of the General Committee—The Right Hon. John B. Balfour, Q.C., LL.D., M.P.; R. Fitzroy Bell, Esq., Advocate; A. W. Black, Esq.; John Boyd, Esq.; Sir Thomas J. Boyd; Professor Crum Brown, M.D.; Professor Butcher, LL.D.; John Carment, Esq.,

LL.D., S.S.C.; Professor Chiene, F.R.C.S.E.; D. Christison, Esq., M.D.; The Hon. Lord Rutherfurd Clark, LL.D.; Sir Thomas Clark, Bart.; Archibald Constable, Esq.; Henry Cook, Esq., W.S.; Charles Cook, Esq., W.S.; R. Cameron Cowan, Esq., C.A.; Donald Crawford, Esq., Advocate; The Hon. Lord Stormonth-Darling, LL.D.; John Duncan, Esq., M.D.; J. R. Findlay, Esq.; The Rev. Archibald Fleming; John Harrison, Esq.; James Hope, Esq., W.S.; A. Taylor Innes, Esq., Advocate; The Right Hon. Lord Kinnear, LL.D.; Æ. J. G. Mackay, Esq., LL.D., Advocate, Sheriff of Fife; The Hon. Bouverie F. Primrose, C.B.; Charles Robertson, Esq., B.C.S.; Professor Seth Pringle Pattison, LL.D.; Robert Simson, Esq., B.C.S.; George Smith, Esq., LL.D., C.I.E.; James Walker, Esq. of Dalry. *Hon. Secretary*—Sir Alexander Christison, Bart., M.D. *Secretary*—Robert G. Scott, W.S., 61 North Castle Street.

Local Honorary Secretaries—A. Mercer Adam, Esq., M.D., Boston, Lincolnshire; Sir Dyce Duckworth, M.D., 11 Grafton Street, Piccadilly, London; Peter Gardner, Esq., W.S., 153 St Vincent Street, Glasgow; A. F. Hutchison, Esq., Stirling; James Tait, Esq., W.S., Kelso.

Terms of Membership—Life Subscription, One Guinea; no annual subscription. All friends of the University are invited to become members.

VIII. University Societies and Clubs.

i.—The Agricultural Society. Established 1858. *Honorary President*—James Macdonald, Esq. *President*—J. O. Peet, B.Sc. *Vice-President*—S. F. Ashby, B.Sc. *Secretary*—Alexander Grant. *Treasurer*—J. W. Eastham. *Committee*—Messrs J. Leslie, G. M. Fraser, E. A. Nobbs.

The Society meets weekly on Mondays during the Winter Session at 8 P.M.

ii.—Arts Students' Christian Association. *Hon. President*—Emeritus Professor Charteris. *Hon. Vice-Presidents*—Principal Sir William Muir; Professor Butcher; Professor Hardie; Professor Kennedy; Professor Prothero; Professor Seth Pringle Pattison; Dr A. H. F. Barbour; Rev. George Jackson; Dr Knott; Rev. R. S. Simpson; Rev. George Wilson; Rev. J. H. Wilson. *President*—John MacRae. *Secretaries*—G. Laing Brander; W. Phin Gillieson. *Treasurer*—J. M. B. Duncan. *Ward Secretary*—D. G. Macnaughten, Leith. *Bible Circle Secretary*—C. W. G. Taylor.

Briefly stated, the objects of this Association are—(1) To form a bond of union between Arts Students whose principles and aim in life are Christian; (2) To foster study of the Bible; (3) To encourage University men to engage in Christian work.

(Women's Branch.)

Honorary President—Miss Louisa Stevenson. *President*—Miss Ridpath. *Vice-Presidents*—Miss Mackay, Miss Williamson. *General*

Secretary—Miss I. Stevenson, 26 Newbattle Terrace. *Treasurer*—Miss Drummond, 52 Mayfield Road. *Departmental Secretaries.—For Social Work*—Miss Faill. *For New Students*—Miss Linton. *For Inter-collegiate intercourse*—Miss Ross. *For Bible Study Meetings*—Miss Hogg. *For Foreign Missions*—Miss Robson. *For Work in Mission Districts*—Miss Elliott.

N.B.—All communications to be addressed to the General Secretary.

The work is carried on by means of weekly meetings for Bible study, and other religious and social meetings. Membership is open to all Matriculated women students, present and past, of the University of Edinburgh, the annual subscription being one shilling.

iii.—Associated Societies of the University. This Association was instituted in 1833, and is a Union of Literary and Debating Societies. It is composed at the present date of five societies :—The Dialectic, Scots Law, Diagnostic, Philomathic, and Celtic Societies. The following is the list of the Office-Bearers of the Association, and of the respective component societies :—

Honorary President-Elect—The Right Honourable the Earl of Rosebery. *Hon. Vice-Presidents*—The Senatus Academicus of the University (*ex officiis*). *Secretary*—R. Sterling Craig, 15 Buccleuch Place.

(1.) Dialectic Society of Edinburgh. Instituted in 1787.—*Presidents*—Messrs W. H. Fraser, M.A.; J. B. Lorimer ; J. Crearer ; J. R. Milne, and D. O. Dykes. *Hon. Secretary*—Mr K. N. Knox. *Hon. Treasurer*—Mr O. B. Milligan. *Delegates to Associated Societies' Council*—Mr Secretary and Mr W. E. Wait.

The Society meets in the Associated Societies' Hall every Thursday evening at 8 o'clock, for the prosecution of Literary and Philosophical Composition, Criticism, and Debate.

(2.) Scots Law Society. Instituted in 1815. *Presidents*—J. Aitken Welsh, M.A., LL.B., Advocate ; Charles. R. Beveridge, Solicitor, and Robert Connon, Solicitor. *Secretary*—G. M. Crawford, Solicitor, 58 Findhorn Place. *Assistant-Secretary*—James MacRail, Solicitor, Bona Vista, Portobello. *Treasurer and Librarian*—John A. Robson, M.A., LL.B., 5 Nelson Street.

This Society meets every Monday evening during the Winter Session, at 8.30 o'clock, in the Associated Societies' Hall, University, for the purpose of debating Legal Questions and reading Essays.

(3.) The Diagnostic Society. Instituted in 1816. (*Office-bearers not communicated.*)

This Society meets every Tuesday evening during the Winter Session, at 9 o'clock, in the Associated Societies' Hall, for the purpose of debating and reading Essays.

(4.) Philomathic Society. Instituted in 1858. *Presidents*—Campbell Irons ; A. Graham Donald ; W. C. A. Ross, M.A. *Secretary*—J. T. Davidson, 26 Dundas Street. *Assistant-Secretary*—T. S. Muir, M.A. *Treasurer*—H. C. Norman.

This Society meets in the Societies' Hall every Friday evening during the Winter Session, at 8 P.M., for the purposes of debate and essay-reading; and is open to all who are, or have been, Matriculated Students of the University of Edinburgh.

(5.) CELTIC SOCIETY. INSTITUTED 1848. *Honorary President*—Professor Mackinnon. *Presidents*—J. M. Lamont, W. P. Cormack, S. B. Murray. *Secretary*—Don. Lamont, to whom all correspondence should be addressed, Associated Societies' Hall, University Buildings. *Assistant-Secretary*—William Meikle. *Treasurer*—William Hamilton. *Committee*—The Office-bearers, and Messrs Ross, Munro, and Don. Grant. *Representative to the S.R.C.*—James J. Macpherson.

The Society meets every Saturday evening during the Winter Session, at 7 o'clock P.M., in the Associated Societies' Hall. Students from Northern Counties cordially invited. Next Session begins on Friday, 21st October.

iv.—ATHLETIC CLUB. *President*—F. N. Menzies. *Vice-President*—M. C. C. Seton. *Hon. Secretary*—D. B. King. *Treasurer*—C. E. W. Macpherson, C.A.

Open to all Members and Graduates of the University, and to Members of the Extra-Mural School. *Sections*—1. FOOTBALL (Rugby)—*Secretary*—P. C. De la Pryme. 2. (Association)—*Representative*—F. N. Menzies. 3. CRICKET—*Secretary*—T. S. Dick-Cleland. 4. HARE AND HOUNDS—*Secretary*—P. J. Bodington. 5. CYCLING—*Secretary*—G. Twigge-Molecey. 6. LAWN TENNIS—*Secretary*—J. H. Thornley. 7. BOATING—*Secretary*—E. M. G. Jaque. 8. BOXING—*Secretary*—H. R. Philipps. 9. GOLF—*Secretary*—F. H. Stirling.

Field at Craiglockhart. Address all communications to D. B. King, University Union.

v.—CAITHNESS STUDENTS' ASSOCIATION. INSTITUTED IN 1856. *Honorary President*—His Grace the Duke of Portland. *President*—A. W. Lowe. *Secretary*—GeorgeWares. *Treasurer*—W. Keith Tait.

This Association meets fortnightly, in the Education Class Room, on Saturdays, at 8 P.M., during the Winter Session, for the purpose of debating, for reading Essays, and for the advancement of education in Caithness.

vi.—CHEMICAL SOCIETY. INSTITUTED 1874. *President*—Professor A. Crum Brown, M.D., D.Sc. *Vice-Presidents*—Leonard Dobbin, Ph.D.; W.W. Taylor, M.A., B.Sc. *Librarian*—J. P. Longstaff. *Secretary*—Andrew Young, M.A. *Treasurer*—H. W. Bolam, B.Sc., Ph.D.

This Society holds fortnightly meetings, at 8 P.M., in the University Union, during the Winter Session, for the reading and discussion of papers on Chemistry and allied Sciences. Visitors welcome.

Excursions to Chemical Works, &c., during the Sessions.

vii.—DUMFRIESSHIRE AND GALLOWAY LITERARY SOCIETY. INSTITUTED 1847. *Presidents*—J. G. Mackenna, 8 Grindlay Street;

Geo. J. R. Carruthers, 4A Melville Street; D. Paterson, 54 Marchmont Road; Charles R. Beveridge, 57 Marchmont Road. *Joint-Secretaries*—Wm. Forsyth, 18 Warrendar Park Terrace; J. D. Ker, 107 Marchmont Road. *Treasurer*—J. A. Thompson, 5 Spottiswoode Street.

The Society meets every Saturday evening during the Winter Session, at 7 o'clock, in the Public Law Class-Room.

viii.—FREE CHURCH STUDENTS' SOCIETY. INSTITUTED 1886. Office-Bearers for Session 1897-98:—*Hon. President*—Rev. James Kennedy, B.D. *Senior President*—Mr D. H. MacGregor. *Junior President*—Mr J. A. Davidson, M.A. *Secretaries*—Mr T. Gray Philip, Mr Wm. Husband, M.A. *Treasurer*—Mr A. D. Crichton.

The Society is open to all past and present Free Church Students of the University of Edinburgh, and meets in the Elocution Class Room, New College, Mound, every Saturday evening during the Winter Session, at 7 o'clock.

ix.—MEDICAL STUDENTS' CHRISTIAN ASSOCIATION. *Honorary President*—Professor Crum Brown. *Honorary Vice-Presidents*—Professors Sir Thomas Grainger Stewart, M.D.; Greenfield, M.D.; Sir D. Maclagan, M.D.; A. R. Simpson, M.D.; J. Chiene, M.D.; Drs A. H. F. Barbour; P. A. Young; J. O. Affleck; J. W. Ballantyne; R. Fleming; Mr A. G. Millar, F.R.C.S.E.; Mr C. W. Cathcart, M.D.; and Mr J. Shaw Maclaren, M.D. *President*—G. E. J. King. *General Secretaries*—Ernest A. Boxer, 1 Marchhall Crescent, and W. S. Patton. *Ward Service Secretaries*—H. C. Miller and L. M. Wedderburn. *Bible Circle Secretary*—L. T. Price. *Treasurer*—J. Miller.

The object of the Association is, stated briefly, to form a bond of union between Medical Students *whose principles and aims in life are Christian.* Short services are held in all the wards of the Royal Infirmary on Sunday at 9.30-11, by those who are willing to do so. After these services there is a half-hour meeting, to which all Medical Students are invited, in the Chapel of the Royal Infirmary, from 10.5-10.30. It is conducted by various Presidents and Senior Students. There is a daily Prayer Meeting in Professor Crum Brown's Chemistry Tutorial Class-Room, lasting for a quarter of an hour, at 4 P.M. in summer, and 5 P.M. in winter.

The Secretaries will be glad to give fuller information as to the work of the Society, and enrol any who may wish to become members.

x.—MISSIONARY ASSOCIATION. INSTITUTED 1825.—*Honorary President*—Principal Sir W. Muir, K.C.S.I., D.C.L. *Hon. Vice-Presidents*—Lord Balfour of Burleigh (Lord Rector), Professors Charteris, Kennedy, and Seth Pringle Pattison. *Honorary Treasurer*—W. Melville Sym, Esq., C.A. *President*—G. D. Shepherd, M.A. *Vice-President*—R. B. Scott, B.A. *Secretary*—W. G. Mackean.

Assistant Secretary—J. Black, M.A. *Treasurer*—C. G. M'Kenzie, M.A. *Librarian*—S. Sanderson, M.A.

The Association meets to transact business in the Public Law Class-Room on alternate Saturdays, at 10 A.M.

xi.—EDINBURGH UNIVERSITY MUSICAL SOCIETY. FOUNDED 1866-67.—*Patron*—H.R.H. The Reigning Duke of Saxe-Coburg and Gotha (The Duke of Edinburgh). *President*—Professor Niecks. *Vice-Presidents*—Principal Sir Wm. Muir, K.C.S.I.; Professors Annandale, Armstrong, Crum Brown, Butcher, Flint, Kirkpatrick, Rutherford, and Seth Pringle Pattison; Emeritus-Professors Sir Douglas Maclagan, Sir Herbert S. Oakeley; and D. Hepburn, M.D. *Hon. or Corresponding Vice-Presidents*—The President of Aberdeen University Musical Society; Professor Sir John Stainer, Oxford; Professor Villiers Stanford, Cambridge; and Professor Prout, Dublin. *Hon. Secretaries*—C. A. B. Horsford, and Leonard Crossby, University Union. *Hon. Treasurer*—W. Cameron Sillar, M.B., B.Sc. *Conductor*—Carl D. Hamilton. The Chorus (male and female) meets for practice weekly in the Music Class Room, Park Place, on Tuesdays, at 5.10 P.M. Subscription, 2s. 6d.

xii. — PHOTOGRAPHIC SOCIETY. — (*Office-Bearers not communicated.*) All past and present Students eligible. Monthly meetings during sessions. Excursions in summer time.

xiii.—RIFLE COMPANY SHOOTING CLUB. INSTITUTED 1873.—*Honorary Presidents*—Lieut.-Colonel Sir Wm. Turner and Professor Balfour. *President*—Captain Hope. *Vice-President*—Lieutenants J. B. Jamieson, and R. Adams. *Secretary and Treasurer*—Corporal R. M. Skinner, The Union. *Committee*—Colour-Sergeant Grey, Sergeant Bond, Corporal Miller, Lance-Corporal Melville, and Private Jones. This Club is open to members of No. 4 (University) Company, Q.R.V.B., R.S. The Club superintends the shooting of the Company. Weekly competitions are held at Hunters' Bog, and an Annual Prize Competition in July, at which numerous prizes are given. A silver teaspoon is given for each weekly competition.

xiv.—SCOTTISH INTER-UNIVERSITY RIFLE MATCH.—*Edinburgh Committee*—Captain J. A. Hope; Colour-Sergeant Grey; Sergeant A. N. Bond, Q.R.V.B.; Sergeant R. H. R. M'Kean; Bombardier A. J. Mackenzie, E.C.V.A.; Staff-Sergeant G. M. Pratt; Private J. R. Robinson, V.M.S.C. *Hon. Secretary*—Colour-Sergeant Gavin Grey, Q.R.V.B., 37 Gilmore Place. The Inter-University Challenge Trophy is shot for annually by the four Scottish Universities. Each University sends a team of ten men, of whom at least five must be matriculated students at the date of the match, and the remainder must have attended a class in the University for at least one Session. Students willing to shoot are requested to communicate with the Secretary.

xv.—SHINTY CLUB.—(*Office-bearers not communicated.*) Membership is open to all past and present Students of the University. Practice at Inverleith Park on Saturday afternoons during Winter Session.

xvi. — THEOLOGICAL SOCIETY. INSTITUTED 1776. — *Honorary President*—Rev. Professor Flint, LL.D., D.D. *Honorary Vice-Presidents*—Rev. Professor Charteris, D.D.; Rev. Professor Taylor, D.D.; Rev. Professor Kennedy, D.D. *Presidents*—R. B. Scott, B.A.; G. D. Shepherd, M.A.; C. G. Mackenzie, M.A.; S. S. Sanderson, M.A. *Secretary*—Bruce M'Ewen, M.A. *Treasurer*—A. J. Campbell, B.A.

This Society is open to present and past Students of any Theological Seminary. It meets every Friday evening during the Winter Session, at 7. P.M., for debates and discussions on questions of Theology, Church History, Biblical Criticism, General Ecclesiastical Polity, and kindred subjects.

xvii.—TOTAL ABSTINENCE SOCIETY. INSTITUTED 1853.—(*Office-bearers not communicated.*)

The condition of membership is total abstinence for the current academic year, "ab Octobre ad Octobrem." All Students who are abstainers are eligible as members. Annual Subscription, 1s. (voluntary).

xviii.—UNIVERSITY BATTERY, E.C.V. ARTILLERY.—*Captain*—H. Overton Hobson. *Lieutenant*—J. Carruthers. *Sergeant-Major*—C. J. Lauchlan. *Sergeants*—R. H. R. M'Kean. F. A. Gray, H. M. Mackenzie, E. L. Munn. *Hon. Secretary and Treasurer*—Bombardier Pirie, University Union.

Further information may be obtained from the Honorary Secretary, University Union; from any of the above N.C.O's, or at Headquarters, 28 York Place.

xix.—UNIVERSITY U.P. STUDENTS' SOCIETY. INSTITUTED 1843. —*Honorary Presidents*—Professor Crum Brown, M.D., LL.D.; Rev. John Hutchison, D.D.; Rev. A. B. Cameron, D.D.; Rev. R. D. Shaw, B.D. *President*—W. H. Sellar, M.A. *Vice-Presidents*—J. K. MacGregor; J. Murray. *Secretary*—D. K. Bogie, 17 Lauriston Place. *Treasurer*—R. G. Millar.

The Society meets every Saturday evening during the Winter Session, in the College Buildings, Castle Terrace, at 7 o'clock.

xx.—WOMEN'S DEBATING SOCIETY. INSTITUTED 1893.—*President* — Eleanor J. C. Lorimer. *Vice-Presidents* — Marion J. Gray. *Secretaries* — Elizabeth H. C. Pagan, 13 Blacket Place; Mary G. Williamson (Assistant). *Treasurer*—Elizabeth C. Faill.

The Society meets every alternate Friday during the Winter Session, at 5 P.M., within the University, for Debate and Literary Criticism.

RESIDENCES AND BOARD FOR STUDENTS.

(*Not under the control of the University Authorities.*)

I. For Men Students.

(1.)—University Hall, St Giles' House (22 St Giles' Street); Riddle's Court (5 Victoria Terrace); Ramsay Lodge (Ramsay Garden); and Blackie House (8 North Bank Street). Founded May 1887.—University Hall is designed as a social residence for Students, Graduates, and others connected with the University. Begun in 1887 at Mound Place, it has since been extended to Riddle's Court, to Ramsay Lodge, to St Giles' House, and to Blackie House. These buildings are within short distances of the University, and include common rooms, private studies, and bedrooms. The rents range from 8s. to 18s. per week, and the board from 12s. to 14s. per week, payable by term or fortnightly, in advance.

The external affairs of the Hall are in the hands of The Town and Gown Association, Limited.

The internal arrangements of each house are managed by a committee of the residents elected monthly. When desired, young Students can be placed under the care of one of the resident tutors, the Rev. H. H. Flower, Pittodrie House, Ramsay Garden; J. A. Thomson, Esq., M.A.; and others. In some of the chambers and larger houses occupied by teachers, graduates, &c., Students can be received as pupils and boarders.

Application for rooms should be made at the different houses. Application for information with regard to general questions on University Hall should be made to Messrs Whitson & Methuen, C.A., 26 Hill Street, Edinburgh.

(2.)—Ramsay Garden. The Rev. A. T. Bell receives Students as boarders, the number being limited to six. Special supervision can be given and tuition arranged for, if desired. Application for particulars, terms, references, &c., to be made to Mr Bell.

II. For Women Students.

(1.)—Crudelius House, 6 Archibald Place. Instituted 1894.—The Directors are ladies, professors, and others interested in University work. Terms for board and lodging, from 18s. per week.

Secretary—Thomas B. Whitson, C.A., 26 Hill Street. *Hon. Secretary* (to whom inquiries should be addressed) — Miss H. M'Lean, 35 Howe Street. *Assistant Hon. Secretary*—Miss Whitson, 1 Spence Street, Edinburgh.

(2.)—Masson Hall, 31 George Square. Instituted 1897.—*Hon. President*—Principal Sir William Muir, K.C.S.I. *President*—Miss Houldsworth. *Hon. Treasurer*—Miss S. E. S. Mair. *Warden*—

Miss F. H. Simson, M.A. *Hon. Secretary*—Miss Louisa Stevenson, 13 Randolph Crescent, Edinburgh.

This Hall was founded and so named in honour of Emeritus-Professor Masson, in recognition of his great services in the cause of Women's Education, and was opened in 1897. It is situated in convenient proximity to the University and Medical Schools.

Non-resident students may become members of the Hall by a small annual subscription, and have access to the Library and to the Dining-room where meals are provided at moderate rates.

Terms for Board and Residence may be had on application to the Warden, or to the Hon. Secretary. A room for Students' Meetings can be provided by arrangement.

(3.)—THE MUIR HALL FOR STUDENTS OF MEDICINE, 12 GEORGE SQUARE.—*President*—Sir William Muir, K.C.S.I. *Vice-Presidents*—J. R. Findlay, Esq. of Aberlour; Mrs Freeland Barbour. *Honorary Treasurer*—Mrs Marcus Dods. *Honorary Secretaries*—Miss Inglis, L.R.C.P. and S.E.; Miss Wilson. *Lady Superintendent*—Miss Robertson.

The Hall is managed by a Lady Superintendent, is under the direction of a Committee of Management, and contains two Common Rooms, besides Private Rooms for Residents, and Bath Rooms on each Floor. The Private Rooms are arranged as Study Bedrooms, and the charge varies according to the size and outlook, from 16s. 6d. to 25s. a week, including Board. Students who remain for examination after the Session has ended are charged 1s. 6d. a week extra. Half Rents during the Christmas and Spring Vacations, to Residents who wish to retain their Rooms. The Residents have the use of the Square Gardens, where there are Tennis Courts. For particulars apply to the Lady Superintendent.

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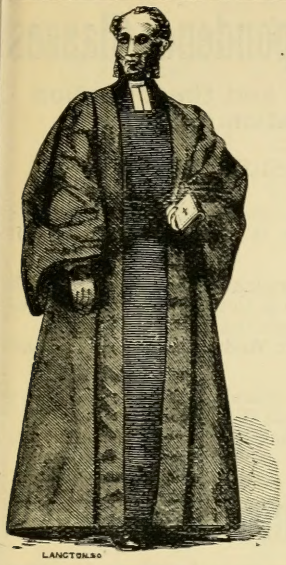

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Age.	25	30*	35	40	45	50	55
During life	£1 18 0	£2 1 6	£2 6 10	£2 14 9	£3 5 9	£4 1 7	£5 1 11
25 payments	£2 10 2	£2 13 0	£2 17 9	£3 4 6	£3 14 0	£4 8 7	£5 6 11
15 payments	£3 8 5	£3 12 1	£3 18 0	£4 5 8	£4 16 2	£5 11 8	£6 9 11

* At age 30 **£1000** at death may be secured by a yearly payment, *during life*, of **£20, 15s.**, which would generally elsewhere secure (with profits) **£800** only. Or **£1000** secured at death by **25** payments of **£26, 10s.**—Premiums thus ceasing before age **55**.

The **SURPLUS** at last Investigation (**1894**) amounted to **£1,423,000. More than one half** of the Members who died during the last Septennial period were entitled to Bonuses which, notwithstanding that the premiums do not as a rule exceed the non-profit rates of other Offices, were on the average equal to an **Addition of about 50 per cent. to the Policies** which participated.

The ACCUMULATED FUNDS exceed £10,500,000.

Arrangements as to Surrenders, Non-Forfeiture, Loans on Policies, Free Residence, Immediate Payment of Claims, &c., are specially liberal.

LONDON—17 King William St., E.C.
GLASGOW—29 St Vincent Place.
ABERDEEN—166 Union Street.
DUNDEE—12 Victoria Chambers.

HEAD OFFICE—6 ST ANDREW SQUARE, EDINBURGH.

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Established 1801.